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ANALYSIS OF THE MEDICARE ECONOMIC INDEX

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STATEMENT OF COST AND PERSONNEL RESPONSIBLE FOR REPORT

This Report is made pursuant to Contract No. 500-78-0052. The charge to the Department of Health and Human Services for the work resulting in this report (inclusive of the amount so charged for any prior reports submitted under this contract) is $117,113. The names of the persons, employed or retained by the contractor with managerial or professional responsibility for such work or for the content of the report, are as follows

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ABSTRACT

This Report examines the variation in practice costs and certain fees across physician specialties. The analysis relies on data from the Physician Practice Cost Surveys, 1976 to 1978. The results from the analysis indicate that significant differences do exist across specialties in the principal cost shares of rent, supplies, overhead, salaries, auto expenses, malpractice premiums, and net income. These cost shares also vary significantly across region and population groupings although, with the regions disaggregated into states, the number of significant findings is fewer.

SUMMARY

This Final Report describes work performed through Jan. 15, 1981, for the Second Option Year of Contract No. 500-78-0052 in Area 1. The work described here for Area 1 focuses on the estimation of the costs of operating office-based practices in each of the major physician specialties. Teknekron Research, Inc. has already completed similar work on the costs of physician practices for the Base Year and Option Year 1 under this Contract using as input, data from the 1976 and 1977 Physician Practice Cost Surveys. In this Report for the Second Option Year, we continue the same type of analysis but using the 1978 Survey. Also we compare the estimates based on the 1978 Survey with the results based on the two previous Surveys. For this comparison, the cost estimates for the two previous years were re-computed to insure consistency.

In Section I below, we explain the role of the Medicare Economic Index in setting current prevailing charge limits and we note how the Index makes use of the cost estimates which are presented in Sections III to V. Section II reviews the procedure used to transform the Survey input data into statistical files. In several steps, separate files were created for each of the three Survey years. For each of the three years, these files included the same set of variables, ordered and defined identically. This set of variables included all Survey variables and others describing the characteristics of the area in which the practice was located and the file procedures were designed so that this set of variables could be readily expanded or reduced. Because of the identical structure of the individual year files, creation of the joint year file was straightforward. Subsequently, editing of the joint year file was completed to eliminate cases where the data values indicated a possible coding or response error.

Section III includes estimates of the average costs in each of the major input categories for the 15 specialties and it presents the corresponding cost shares for each input. The following Section shows the results from a multivariate model which determines whether certain variables can explain a significant part of the variation in these cost shares; these variables include the physician's specialty, the location of the practice, and various practice characteristics. Analysis is completed for each year separately and for all years jointly. As expected, the effect of physician specialty, practice location and characteristics all strongly influence the differences in cost shares.

Section V provides a more detailed analysis of the effect of these variables. It includes regression analyses of the cost shares using nearly the same set of independent variables as in the multivariate analysis of variance above. This regression analysis identifies the partial effect of each independent variable on each share. This Section also includes a regression analysis of the Index itself using these same independent variables. Each year is analyzed separately and all years jointly.

Attached to this Report are two Appendices which include a comprehensive set of Tables showing the cost means and ratios for all 15 specialties for each of the seven main cost categories and a separate set of Tables showing fees and reimbursements. A table of contents precedes each set of Tables and provides a guide.

SECTION I

INTRODUCTION

In 1976, the Health Care Financing Administration implemented a new method to screen physician charges for services under Medicare. This method was designed to limit the growth in reimbursements to physicians by re-defining the way the maximum reimbursements were set. This change in methods had occurred because of Congressional reaction to the rapidly increasing Medicare budget in the late sixties. In 1972 Congress passed new legislation which directed the HCFA to change the methods it used to control reimbursements with the new legislation tying future adjustments in maximum reimbursements to changes in physicians' costs rather than the history of physicians' fees. After a delay from 1972 to 1975 due to the price freeze associated with the Economic Stabilization Program, the HCFA in 1976 responded to the Congressional directive by implementing this new method to update the prevailing charges.

The HCFA sets reimbursements through a reasonable charge process which is similar to the one used by most private insurers. Under this system, the physician receives as reimbursement the minimum of the actual amount billed, the customary charge or the prevailing charge. The customary charge for a given procedure is the median of the physician's own charges in the previous year while the prevailing is the 75th percentile of charges for all physicians from the same specialty and locale. In this system, the prevailing charge is the maximum reimbursement possible although many physicians do not receive it because their customaries or actual charges are lower. In other words, the physician can receive no more than the prevailing charge as a reimbursement even if the current charge or customary is higher.

Prior to 1976, the HCFA set the prevailings using the distribution of actual charges in the preceding calendar year. To find each prevailing, the carriers identified all charges for a given procedure which were submitted during the previous calendar year and grouped these charges by specialty and region. The carriers then found the charge at the 75th percentile in the distribution and this charge became the new prevailing which applied during the next fee screen year. (The fee screen year begins on the first of July, six months after the end of the previous calendar year which is the year used for the charge sampling.) Under this system, prevailings increased at the rate which fees rose in the previous year.

In 1976, the HCFA adopted a new procedure. It now sets the overall prevailing as the minimum of the prevailings as defined above and prevailings updated by an Index value. It sets the Index-updated prevailings by applying the current value of this Index to the prevailings which were effective in 1973. Each year the HCFA updates this Medicare Economic Index value by using estimates of the increase in the price of physician inputs and index weights from the Physician Practice Cost Surveys. Using the Index to update prevailing charges breaks the link between increases in last year's fees and prevailings effective during the current fee screen year. This Report presents several sets of estimates for these weights in Section III below. It analyses variations in these weights in later Sections. Before considering the weights themselves, we will briefly review the form and function of the Index.

The Medicare Economic Index is a partially chained Laspeyres index with seven input categories: rent, supplies, employee salaries, automobile expenses, malpractice premiums, net income, and other (i.e., equipment and overhead). In general, the Laspeyres price index is the ratio of current to base period prices, each price in both periods weighted by its expenditure share in the base period. A chained Laspeyres index updates these base weights each period. The Index weights undergo a limited updating each year with the weight for net income remaining unchanged at sixty percent. This procedure leaves a fixed forty percent share within which the six non-physician cost categories can vary. In the last two years, revisions to the weights have come from the data in the Physician's Practice Cost Survey. Because a lag exists between the date of the Survey itself and the availability of the data, the weights from the Survey are not current year weights. In fact, the Index value for the 1982 Fee Screen Year uses data from the 1977 Survey to estimate the weights.

The Index uses price proxies from the B.L.S.; these prices do not come from the Survey. The price for malpractice premiums originates in a special HCFA Survey. Table 1 displays the values of the weights and the price proxies for past years. For each category, the current proxy value appears on the first line, followed by the ratio of the current to the previous year value. The value of the weight is shown on the third line for each cost category. The Index value for each year appears at the bottom of the Table. Note that it has risen over fifty percent from its first use in fee screen year 1976 to 1982.

TABLE I-1

MEDICARE ECONOMIC INDEX

INDEX COMPONENTS	FEE SCREEN YEAR						
	1976	1977	1978	1979	1980	1981	1982
1. PHYSICIAN EMPLOYEES							
A. WAGE							
1. CURRENT PROXY VALUE	3.8200	4.1300	4.3600	4.6000	4.9547	5.3397	5.8566
2. RATIO TO PREVIOUS PERIOD	1.1682	1.0812	1.0557	1.0550	1.0771	1.0777	1.0968
B. INDEX WEIGHT	.1480	.1480	.1720	.1720	.1720	.1760	.1720
2. RENTAL COST							
A. PRICE							
1. CURRENT PROXY VALUE	150.6000	166.8000	177.2000	189.6000	205.9625	231.2753	267.5624
2. RATIO TO PREVIOUS PERIOD	1.2116	1.1076	1.0624	1.0700	1.0863	1.1229	1.1569
B. INDEX WEIGHT	.0560	.0600	.0400	.0400	.0400	.0880	.1000
3. AUTO EXPENSES							
A. PRICE							
1. CURRENT PROXY VALUE	136.6000	149.8000	164.6000	176.6000	185.3064	212.8995	250.0919
2. RATIO TO PREVIOUS PERIOD	1.1715	1.0966	1.0988	1.0729	1.0493	1.1489	1.1747
B. INDEX WEIGHT	.0240	.0280	.0200	.0200	.0200	.0240	.0280
4. SUPPLIES							
A. PRICE							
1. CURRENT PROXY VALUE	112.7000	126.6000	134.0000	140.5000	148.1011	159.4012	174.4008
2. RATIO TO PREVIOUS PERIOD	1.1006	1.1233	1.0585	1.0485	1.0541	1.0763	1.0941
B. INDEX WEIGHT	.0360	.0360	.0320	.0320	.0320	.0440	.0400
5. OTHER							
A. PRICE							
1. CURRENT PROXY VALUE	147.7000	161.2000	170.5000	181.5000	195.2940	217.6942	246.9959
2. RATIO TO PREVIOUS PERIOD	1.2176	1.0914	1.0577	1.0645	1.0760	1.1147	1.1346
B. INDEX WEIGHT	.1360	.1120	.1080	.1080	.1080	.0160	.0160
6. MALPRACTICE PREMIUMS							
A. PRICE							
1. CURRENT PROXY VALUE	-	-	-	-	-	-	-
2. RATIO TO PREVIOUS PERIOD	-	1.8400	1.4170	1.1030	1.0085	0.9210	1.0526
B. INDEX WEIGHT	-	.0160	.0280	.0280	.0280	.0520	.0440
7. PHYSICIAN NET INCOME							
A. PRICE							
1. CURRENT PROXY VALUE	154.4300	163.8900	176.2900	189.5300	204.2754	219.9229	235.7573
2. RATIO TO PREVIOUS PERIOD							
A. GROSS OF PRODUCTIVITY	1.2156	1.0567	1.0729	1.0772	1.0778	1.0766	1.0720
B. PRODUCTIVITY MEASURE	1.0391	1.0204	1.0326	1.0194	.9980	.9920	.9939
C. NET OF PRODUCTIVITY	1.1699	1.0356	1.0390	1.0567	1.0800	1.0853	1.0786
B. INDEX WEIGHT	.6000	.6000	.6000	.6000	.6000	.6000	.6000
MEI FOR PAYMENT PURPOSES (CUMULATIVE)	1.179	1.276	1.357	1.426	1.533	1.658	1.790
% CHANGE FROM PREVIOUS YEAR	-	8.23	6.29	5.09	7.55	8.15	7.96

SECTION II

COMBINATION OF THE 1976, 1977, AND 1978 SURVEYS

This Section reviews the file construction necessary to complete the analysis of the cost shares and the Index over time. This analysis required Teknekron to combine the 1976, 1977, and 1978 Physician Practice Cost Surveys. In previous years' work, Teknekron has conducted a separate analysis using each of the Surveys as the data became available from the National Opinion Research Center which conducted the Surveys. With all three Surveys available, they were combined to examine differences through time.

Although the basic structure of these annual Survey files has not changed through the years, the definition, location, and coding rules for many of the variables have changed from year to year. In addition, several variables appear in only one or two of the three Surveys. These changes required transforming each annual Survey file into a uniform file whose variables are similarly defined and identically located. These annual files were then concatenated into one all-year file. This concatenated file includes all cases from each of the three Surveys, a total of 13831 observations of which 3482 cases come from the 1976 Survey, 4865 from the 1977 Survey, and 5484 from the 1978 Survey. Editing to eliminate cases with data likely to be erroneous was not performed separately on each of the annual files. Instead, such editing took place on the concatenated file even though some of the rules for editing for certain variables such as physician costs were year dependent.

Creating this concatenated file required several steps. Work on each of these steps was performed separately for each year in order to prepare three separate but uniform input files for a joint year statistical save file. Programs used in the steps prior to the creation of the save files were written in PL/I primarily to take advantage of its facility for string interpretation and efficient record input/output. (The statistical save files were coded in SPSS and converted to SAS.)

In the first step, the specialty code was corrected in those cases where the physician's actual specialty differed from the specialty which NORC had initially assumed. NORC used the A.M.A. specialty designation as reported by the physician to construct a random sample stratified by specialty and region but upon interviewing the physician, NORC discovered that these designations were incorrect in approximately 100 cases in each of the three years. Because much of the file construction and analysis is done by specialty, the file was re-sorted by this corrected specialty code and a sequence number assigned to each case on output.

Each record was then partitioned into three sub-records: one with sequence number, specialty code, and specialty fee and reimbursement data; a second with sequence number, FIPS codes, and AMA-source variables such as specialty board data, school codes etc.; and a third with sequence number and the entire

Survey plus ARF variables which is the remainder and major portion of the record. This partitioning reduced the input/output counts and space requirements in subsequent processing.

Subsequently, the first sub-record for the specialty fee/reimbursement was condensed. Each physician was asked about specialty fees/reimbursements only for a pair of procedures appropriate to own specialty but not of course about procedures specific to other specialties. For simplification of documentation, NORC had allocated sufficient space on its output record for all of the specialty fee responses for each case even though each physician answered for only a pair of fees. NORC's approach allowed each location to be defined uniquely but consumed fifteen times the required variable space. NORC assigned missing values for the fees other than the physician's own. We defined two new sets of varibles, one for each of the two procedures about which the physician provided fee and reimbursement information. These sets, labelled Specialty Procedure One and Specialty Procedure Two and containing the five fee and reimbursement variables, occupy the same record location for each physician but are defined differently depending on the physician's specialty. Careful file checks were made to insure the accuracy of this step.

In the next step, the second sub-record was transformed and A.M.A. data added to the record. A categorical school quality variable was created; also, the license year and A.M.A. specialty codes were converted to numeric values. These recodings were checked.

In the second part of this step, the 1976 A.M.A. special count of physicians by county (numbers of specialists in each of four activity levels) was spliced to this small sub-record of transformed variables. The A.M.A. file was transformed prior to this matching operation; the original file was considerably condensed by restricting the number of specialties to 15 and the number of activity counts to 4.

To splice these two files required matching records on a county basis; the FIPS state and county codes in each of the records was used for the matching. To perform this task, each file was sorted by these FIPS codes. Then, a program searched the A.M.A. file to find a county whose FIPS code matched the FIPS code on the Survey record; this search required a 'look-ahead' check. Less than ten records in any Survey file had FIPS codes which could not be matched. This program carefully checked the matching of the FIPS codes from the Survey and the A.M.A. files, assigning a missing value if no match was possible for a particular record.

The program identified the un-matched Survey records and produced a count of the total matched records. (Matching only this small end section of each Survey record with a record from the A.M.A file reduced the input/output and space requirements.) At this step, a count of physicians by county by specialty was output in order to determine the distribution of physicians sampled. In the final operation in this step, the matched file was re-sorted by the case sequence number.

At this point, the three sub-records were joined. this operation was straightforward because each of the three input files was identically ordered; again these three files are first the one with AMA physician counts and identifiers; second, the condensed specialty fee file, and third, the remainder of the original record (i.e. the Survey and the ARF), which was in fact the major portion of the NORC-supplied record. This spliced file constitutes the master or base file for each year; it contains all the variables which can be used in any of the statistical analyses.

Using this master file as input, a separate program selected variables as output, which were then in turn input to the statistical programs. This program which selects variables from the master file is a very simple PLI record input/output program and is designed to be altered quite readily for selection of a larger or smaller set of variables. The program allows easy re-calculation of the record length and re-definition of both the input and output structure. Those variables currently outputted include all those from the Survey, including both the follow-up and specialty fees, the Survey and AMA-source personal identifiers, and selected ARF variables.

The Area Resource File (ARF) is a file maintained by the Health Resource Administration of H.H.S. For each county, the ARF includes data on population, general population characterisitics from the preceding Census, numbers of medical personnel and facilities, health status indicators, Medicare and general health care expenditures, prevailing charge rates under Medicare, etc.

(Because counties vary considerably in size, the county charactersitics will not be uniformly related to the individual practice. Practices in smaller and certainly practice in more homogenous communities will probably be more strongly influenced by the county-wide characteristics.) Certain ARF variables were selected as proxies for the characteristics of the area in which the practice was located. These variables include county population, SMSA population, counts of physicians and nurses , population characteristics such as median income, years of education, etc., Medicare expenditures and enrollees, hospital and nursing home size and utilization, prevailing charges, etc.

The construction of a statistical (SPSS) save file was the next step. A separate file program was written for each Survey year. These programs are not identical because the input format and coding rules changed from year to year. Also, where a variable appeared in just one year, it was assigned a missing value for the other years. All variables have mnemonic labels and although the three save files are separate, naming conventions are uniform for variables and value labels in order to reduce the problem of mis-identifying variables when selecting a set for input to the joint year file. (All missing values are recoded to a uniform value of -9 for consistency.) Recoding and variable transformation statements are grouped logically (not by the order of the input variable's location) in order to simplify future changes.

In the final step, a joint year file was created. Because the individual year save files had transformed the variables so that they were defined uniformly across all three years, the creation of the joint file was straightforward. First, a subset of the save file variables was chosen which was specific to each task and this subset output as 'raw data' under a uniform format for all three years. These three data files were concatenated and then sorted by specialty and by year within specialty. It may appear that the creation of files for both the individual years and the joint year required unnecessary duplication but this duplication was desirable because the individual files were used separately.

To date, three joint year save files have been created: one specific to Task 4; one specific to the cost share analysis of Task 1; and the third for the fee analysis in Task 1. As a final note, the number of valid observations for analysis in each of these tasks is substantially less than the total sample of 13831. For most of the joint year analysis, the sample size ranges from 4000 to 10,000.

After the creation of the basic joint year cost file for Task 1 analyses, it underwent two stages of modification. The first stage primarily addressed the issue of missing data for the component cost variables in the Medicare Ecomonic Index. Because the cost shares are computed from a data base consisting of those cases with complete cost data for all seven cost variable, it was essential to minimize the impact of missing data. We therefore imputed values for the following four variables: equipment costs, auto costs, percent fringe benefits for non-physician employee salaries, and physician pensions. The latter two were particularly affected by missing values. Fringe benefit data were collected only in the 1978 Survey leaving missing values for all 1976 and 1977 cases. Similarly, the pension question was asked of all respondents only in the 1977 Survey.

For auto costs, the value imputed for missing data represented the mean value of auto costs for the respondent's specialty for each Survey year. The value imputed for missing equipment data was also the mean value for the respondent's specialty. For employee fringe benefits, missing data took on the mean value of the respondent's specialty using the 1978 Survey.

Finally, missing pension data was addressed by using the 1977 data to form a regression equation where pension share was the dependent variable and net income, specialty, incorporation status, number of physicians in the firm, and the respondent physician's age entered as predictors. Pension share was defined as the ratio of pension contribution to physician net income. The coefficients resulting from this 1977 regression were used to estimate 1976 and 1978 (as well as missing 1977) pension data by forming the product of the estimated pension share and net income.

In each Survey, the physicians were asked whether net income fell into one of ten mutually exclusive closed-ended categories or one open-ended category for net income beyond $100,000. Thus, net income was initially a categorical not a continuous variable for most cases, i.e., those with reported net income below $100,000. Initially we examined the frequency distribution of net income for each year and we discovered that the distribution rose monotonically to a mode value of about $47,600 in 1976, $49,000 in 1977 and $50,500 in 1978, and then declined monotonically except for a perturbation in the category nine interval ($90,000 to $100,000). We hypothesized that some physicians were unwilling to report their net income above $100,000 because this required stating the exact dollar amount and that therefore they reported net income in the highest closed categorical interval. We estimated a net earnings function with independent variables which included years of experience, experience squared, annual hours, weeks worked, practice incorporation status, and the sex of the respondent. The sample included all physicians to the right of the mode of the empirical distribution except for those in category nine. (This does create a problem with non-normal error terms.) We used this equation to estimate the net income for those reporting net income in category nine. If the estimated net income exceeded $100,000, then estimated net income was substituted and the categorical variable also changed. The number of physicians reassigned a higher net income as a result of this procedure was quite small.

As a second phase of modification to the net income variable, we converted the categorical variable by imputing a representative dollar value for each interval. A simple imputation is the midpoint but using the midpoint ignores the shape of the overall distribution of net income. Instead, we graphed the frequency distribution of the log of net income for each of the three years separately. We then attempted to fit a smooth curve to each of these three frequency distributions. We then imputed the net income value for each interval by finding that value for net income which corresponded to the midpoint of the frequency distribution.

The data set resulting from these stage 1 modifications form the basis of the unedited Tables 1-32 in Appendix I.

The second stage of file modification consisted of editing the data set for outliers. First, for each case, the space cost variable was divided by the number of physicians in the firm. The mean and standard deviation of the resulting per md space cost variable were computed for each of the Survey years. An upper limit was constructed for each year by adding four standard deviation values to the mean (1976=$54872; 1977=$61592; 1978=$55974). All cases with per md space costs exceeding this upper limit were eliminated from the data set. Similar manipulations were performed on equipment and supply costs. Cases exceeding the yearly limits were likewise eliminated. (Equipment: 1976=$33611; 1977=$21194; 1978=$20349 and for supplies: 1976=$33130; 1977=$32668; 1978=$38739.) In addition to the above criteria, cases with zero space costs were also eliminated.

The data set was also edited for outliers on physician total hours worked per week (cases below 15 and above 100 hours were dropped), the number of office visits per hour (cases below 0.5 and above 15 were eliminated), total patient contacts (cases below 15 and above 500 were dropped), and finally, office visits (cases below 10 and above 370 visits were eliminated). These editing criteria for physician hours and patient contacts are consistent with those applied in the Task 4 analyses. (Except for total hours, the upper bound for rejection is four standard deviations from the mean.)

In conclusion, an attempt was made to edit the data for outliers on the variable net income. An upper bound set at four standard errors was established from a net earnings regression equation But applying these estimates on a case by case basis resulted in identifying as outliers cases primarily from the middle part of the distribution. This result implies that many physicians throughout the income distribution might have under reported their net income.

The data set resulting from this second stage of editing forms the basis of the edited Appendix Tables 33-72 as well as of the multivariate and regression analyses presented in Sections IV and V respectively.

SECTION III

ANALYSIS OF PHYSICIAN COSTS AND COST SHARES

This Section presents several tables describing the costs of the physician practice for each of the three Survey years, 1976 to 1978. Similar tables were shown in the Base Year Report using data from the 1976 Survey and in Option Year I using the 1977 Survey. This Report adds cost estimates for the 1978 Survey. It also presents estimates for 1976 and 1977 again with the same definitions and assumptions applying across all three years so that direct comparison is possible.

These tables show the cost levels and shares for each of the seven cost categories in the Medicare Economic Index. The cost share estimates from the 1978 Survey are potential candidates for the weights in the Index for Fee Screen Year 1983; estimates from the 1976 and 1977 Surveys were used in Fee Screen Years 1981 and 1982 respectively. The tables display these costs for each of the fifteen specialties sampled and for the sample population overall. The cost estimates included in this Section mostly follow one set of assumptions; the cost table Appendix adds numerous other tables with different assumptions.

The three Surveys basically focused on the same aspects of the physician practice. The questions covered the areas of practice organization, the types and hours of medical activities, the costs of operation and amounts of net and gross income, the fees charged various groups for specific procedures and some characteristics of patients. For Area 1, the main variables of interest are the costs of operation and net income and the size and type of practice organization.

We will first review some issues concerning the timing of the Survey and the general nature of the Survey's questions. Each Survey asked the physician about costs of operation in the prior calendar year; thus, for the 1978 Survey, physicians were surveyed in 1979 and queried about 1978 practice costs for the entire previous calendar year. (Because many physician firms operate on a non-calendar fiscal year, costs on average probably represent a slightly earlier period than mid-1978.) The Survey's unit of observation was the individual physician and not the firm in which the physician was working. Each physician was asked about own firm's cost of operation for rent and utilities, medical supplies, medical equipment, and labor but asked only about own malpractice premiums, auto expenses, net income, and pensions. Thus, the Survey responses were a mixture of individual and firm-wide payments, a result which could lead to some bias and inefficiency in the estimation of firm-wide costs.

This result raises the issue concerning choice of the individual physician, rather than the firm, as the unit of observation. The choice of the physician as the unit allowed the inclusion of Survey questions concerning the physician's individual allocation of effort in medical activities; and this choice also permitted a more accurate sampling of the various specialties, both important objectives of the Survey. Furthermore, over 65 percent of the

Survey respondents were solo practitioners where the physician could respond with complete firm-wide physician expenses. All of the other respondents, the remaining 35 percent, came from groups or partnerships where the respondent was only asked about own physician expenses. However, 57 percent of these were from groups in which all physicians claimed equal income and were from the same specialty. In these groups, the net income and malpractice premiums of the interviewed physician very likely produced a good estimate for the remaining firm members. Consequently, in 85 percent of the total cases, the physician's responses provide quite accurate estimates of firm-wide physician-related expenses. For the remaining 15 percent, only net income and malpractice premiums for the responding physician are known, not the total for the firm. (Work in the First Option Year showed that the differences between the per physician and firm-wide cost shares although significant were small in absolute size.)

The Survey asked physicians about expenses in six of the seven cost categories included in the Index. It did not cover general overhead expense (e.g., billing, accounting, legal expenses, publications and seminars.) The Survey only asked about annual medical equipment expense which is included in overhead in the Index categorization. But overhead expense will be substantially under-estimated if the equipment expense is used as a proxy because equipment expense represents one to two percent of overall costs but total overhead is about ten percent. Moreover, the responses to the annual equipment expense question show such great variation that quite likely many physicians answered not with depreciation but with the value of the current year's purchase of new equipment. However, an alternative approach is possible. The 1975 Survey included an extensive set of questions on the firm's overhead expenses and previous analysis for the HCFA indicated that these expenses totalled 10.8 percent of the firm's total cost. In one set of estimates of cost shares, the value of 10.8 percent is imputed as the overhead share for all physicians. To calculate the shares (p) which use the 1975 percentage of 10.8 for overhead, form the product of the shares (r) which count only equipment in overhead and the ratio of the sum of non-overhead shares where the overhead share is .108 (.892) to the sum of the non-overhead shares where the overhead share equals equipment (R) or $p=r(.892/R)$. In the other set of estimates, medical equipment expense is used as the proxy for overhead.

The Survey asked the physician separately about net income and pensions. The question on net income did not explicitly ask for net income less pension but because pensions are deductible most physicians probably responded with income net of pension contributions. Because of the possible ambiguity in this response, estimates of the Index weights are prepared both with the pension payments added to net income and with net income alone. A separate issue is the justification of pensions as a current expense in the physician firm.

Net income clearly is not a direct cost to the physician firm in the same sense as labor or supplies. One can argue that due to long-run restrictions in the supply of physicians, net income contains a greater than competitive return to physician time. Some have assumed that the wages of physician employees are a better measure of the cost of physician time but physician employees still benefit from the aggregate supply restrictions. Also using these wages requires a method to control for differences between physician employees and physician owners on factors related to the production of medical care. Employees and owners are likely to be different in background characteristics not controlled for by the Survey. As in the previous years' work, no adjustment to net income will be made to account for this effect; part of the reason is that the sample of physician employees in the Survey is quite small, about 100 per Survey year. Thus, physician net income is used directly as reported with the interval adjustments mentioned in Section II above. Note that net income is adjusted to exclude the percent of income from other medical practices; the extent of outside income was posed as a separate question in the Surveys. Note also that in the calculation of the firm's net income, the salaries of physician employees were added.

With respect to other expenses, the physicians were asked to report the total weekly salary and total hours for each of five categories of non-physician employees. In some cases, the physician with more than one employee in a category reported the salary or hours of only one employee not the total for all employees. Furthermore, the question concerning salaries was apparently phrased ambiguously and could have been interpreted as either the potential full-time weekly salary or the actual salary paid. Physicians also reported as another variable the total annual wages paid to all non-physician employees and we used this variable rather than the sum of the five separate variables because of the possible errors in these. Note total wages for 1976 and 1977 exclude fringe benefits and other employee costs such as social security payments. In 1978, physicians were asked about employee fringe benefits as a percentage of employee salaries; whether this included the employer Social Security contribution is not clear. The 1978 specialty-specific means were imputed to all 1976 and 1977 cases and those 1978 cases with a missing value for fringe benefits. (A superior estimator might have related the fringe benefit percentage to the practice size, incorporation, and average employee salary.)

The Tables at the end of this Section display the cost variable means, Tables III-1 to III-4 and the cost shares, Tables III-5 to III-8. Table III-4 merely replicates the means of Tables III-1 through III-3 to permit easy comparison of the cost levels across years. Table III-8 replicates the shares of Tables III-5 through III-7 for the same reason. The legend at the bottom of each table describes the methods used in constructing that table. These notes refer to five separate issues: (1)the basis of the cost computation (per physician or firm level); (2)the calculation of net income (whether including or excluding pensions as a separate item); (3)the calculation of overhead expenses (whether it is imputed at 10.8 percent or equipment is used as a proxy); (4)the presence of editing (either no editing or the editing described above); and (5)the use of weights (either no weights, the selection/response weight or the product of that weight and Medicare participation). Tables III-1 through III-8 all rely on the same assumptions. Tables III-9 and III-10 alter one of those assumptions dealing with pension contributions.

These issues were all discussed above but they will be reviewed in order. First, two bases for the cost computation are either per physician or for the firm. The per-physician approach requires allocating expenses among members in a group by dividing the costs for rent, overhead, supplies and employee salaries by the number of physicians in the group while the second requires multiplying the expenditures for auto, malpractice premiums and net income by the number of physicians. The second method assumes a uniformity in certain expenses across physicians while the first does not but it possibly introduces bias in the measure of economies of scale by dividing through by the number of physicians. The cost level tables used the per-physician rather than the firm-wide approach because this allows a direct interpretation of the values and an easier comparison across specialties which differ systematically in the number of physicians per firm. The cost share tables used the firm-wide definition; comparison across specialties is easier with the cost shares because each share is in a sense 'normalized' when divided by total cost. The firm-wide basis is the method used in the evaluation of all costs presented in the Report.

The choice between the per-physician and firm-wide basis for cost calculation is one of three major issues raised in the definition of costs and costs shares. The second and third issues address the measurement of expenses in two separate categories, net income and overhead. The issue for net income is the inclusion of pension payments as a separate item. Where the note in the legend indicates that pensions as a separate item have been excluded from net income, it means that the net income variable includes only the response to the net income question in the Survey but does not include the response to the separate question on pensions. Where the note indicates that pensions are included in net income, the net income variable is the sum of net income and pension payments. With respect to overhead, the notes state that only the expenses for equipment were used as a partial proxy for overhead or alternatively that overhead expenses were imputed at 10.8 percent of total expenses for all physicians. The first proxy includes only equipment expense in the overhead category while the second approach includes all overhead expenses but is based on the older 1975 Survey and does not vary across specialties.

The last two issues focus on the presence of editing and the weighting of the observations. With respect to editing, the notes indicate one of two alternatives: either no editing occurred (denoted by the phrase, all cases with complete cost data) or cases with assumed data errors were removed using the method discussed above (denoted by the phrase, edited cases). Three weighting alternatives exist: first, no weighting; second, weighting by the selection and response probability; and third, weighting by the product of this selection and response probability and the percent of patients with Part B Medicare coverage, an estimate of the extent of the participation in the Medicare program. The weighting by the selection and response probability adjusts for the sampling design which was not proportionate to population size; the number of observations for the internal medicine and surgery specialties was increased to account for the greater variation in their practice characteristics. The addition of the Medicare variable weights observations by their participation in the Medicare program. Note both sets of weights were adjusted so that the weighted overall sample size sums to the unweighted count. This adjustment is found by taking the product of the individual weight and the ratio of the sample size to the sum of weights. Tables III-1 to III-4 present the seven cost categories and total cost for the entire sample and for each of the fifteen specialties for the per physician cost approach. The cost categories match the breakdown in the Medicare Economic Index: rent, overhead, supplies, employee salaries, auto expenses, malpractice premiums and physician net income. The last column on the right in each table is total cost which is simply the sum of the seven separate cost categories. Each pair of entries is the mean cost and beneath it in parentheses, the standard deviation. The notes at the bottom indicate which options are in effect; for these Tables, pension contributions are excluded as a separate item, overhead is imputed at 10.8 percent and the sample is edited.

Examination of Table III-4 indicates that the costs of a physician practice have increased considerably over the years 1976 to 1978. These costs are presented not on a firm-wide but a per-physician basis to permit comparison across specialties which differ in the average number of physicians per firm. The dollar amount of these costs varies by specialty with specialists facing higher non-physician expenses in rent, overhead, and insurance than general practitioners. Malpractice premiums are highest for the surgical specialists with both neurosurgeons and orthopedic surgeons facing annual premiums over ten thousand dollars.

Interestingly, the only expense to drop systematically for nearly all specialties from 1976 to 1977 was malpractice insurance as shown in Table III-4A. This Table presents the annual percentage change from 1976 to 1977 and 1977 to 1978. It shows that from 1976 to 1977 rent rose from twenty to forty percent for nearly all specialties, but this rate of increase abated from 1977 to 1978. The cost of supplies fell between the first two years but increased again in 1978. The percentage growth in non-physician salaries shows a more irregular pattern of growth across specialties and years with the larger increases generally from 1976 to 1977. (Note the irregular pattern of percentage change for allergy, cardiology, and psychiatry; this pattern shows the effect of not having a panel survey and probably reflects the impact of a shift in the distribution of the sample across regions and practice type. Multivariate analysis is needed to control for these shifts.)

Some of these costs show a dramatic increase over the three years. The cost of space and utilities has increased between sixty and seventy percent, for gastroenterologists, otolaryngologists, and ophthalmologists but this cost has risen at least twenty-four percent for all other specialties (except dermatology) with most experiencing increases of twenty to thirty percent. For most specialties, employee salaries, which contribute the largest non-physician cost, have increased between ten and fifty percent with the surgical specialties of ophthalmology, otolaryngology, and orthopedic surgery showing the largest increases and general surgeons and cardiologists actually displaying a slight decrease. Except for gastroenterologists with a growth of over thirty-four percent, the internal medicine specialists have experienced increases below twenty percent in employee salary expenses.

Physician net income presents an irregular pattern of changes across the three years. General practitioners, dermatologists, and psychiatrists showed little if any growth. Of the internal medicine specialties, only gastroenterologists showed a substantial increase. However, the surgical specialists all experienced large increases with otolaryngologists showing the largest growth of about twenty percent in each year. Both ophthalmologists and orthopedic surgeons showed substantial percentage increases, about fourteen percent for the former for both yearly changes and eighteen and eight for the latter.

Total costs including net income have grown at varying rates. For general surgeons and internists, total costs have increased at about fifteen percent per year while general practitioners have seen an increase of only seven percent. Interestingly, this increase is quite similar to the rate of change in the Index applicable to Fee Screen Years 1976-1978 which was fifteen percent although for Fee Screen Years 1977-1979 it was less than twelve percent. (See Table I-1 and note the cost data from the Surveys were implicitly based on the calendar year but the Fee Screen Years run from July 1 to June 30.) Most surgical specialties had larger increases ranging from fourteen percent in urology to forty percent in otolaryngology.

The Medicare Economic Index was designed to update prevailings by at least the increase in the cost of purchased physician inputs, expenses other than for net income. Consequently, a basic comparison is the change in the Index value and the change in costs for these non-physician inputs. The total change in the Index from FSY 1977 to 1979 was 11.7 percent or 5.7 percent per year. Non-physician inputs increased at 15.2 percent (or 7.3 percent annually) and net income at 9.7 percent (or 4.8 percent annually). Note that the rate of increase for non-physician inputs is greater if it is based on FSY 1976 to 1978 rather than 1977 to 1979. For the earlier period, the total change in non-physician inputs was 21.1 percent (or 10.0 percent annually). Averaging these rates results in a total change of 18.2 percent (or 8.7 percent annually) from mid FSY 1977 to mid FSY 1979 which is a close approximation to the calendar year period covered by the Survey. Comparing changes in costs with changes in the Index is valid under the assumption that any changes in output were balanced by changes in substitution among inputs. To elaborate, an increase in output from one period to the next naturally can change total costs independent of any price change. One way to control for this effect is to form the unit cost function rather that the total cost ratio but this still allows for output effects due to economies of scale. If prices change as well, then substitution among inputs can occur as the firm adjusts but substitution will be toward the less expensive inputs. This substitution will mean that the ratio of the unit cost functions will be less than the value of a Laspeyres type Index. Over a short period, changes in output and substitution among inputs are likely to be small relative to changes in prices. Given that these assumptions are satisfied, the difference between the ratio of total costs and the ratio of the Index values lies in the difference between the actual prices and cost shares faced by the firm and those prices and cost share proxies used in the Index. Therefore, the change in total costs would approximate the change in the Index value if the Index incorporated prices which were comparable to the prices facing physician firms.

By specialty, these increases in non-physician costs for Survey Years 1976 to 1978 were the following: allergy, 21.4; cardiology, 3.1; dermatology, 4.3; gastroenterology, 35.6; general practice, 11.2; general surgery, 12.8; internal medicine, 17.2; neurological surgery, 14.5; obstetrics, 17.4; ophthalmology, 34.8; orthopedic surgery, 31.2; otolaryngology, 39.2; pediatrics, 26.8; psychiatry, 16.9; and urology, 8.9. Some of the surgical specialties show rates of change substantially above the comparable cumulative Index value of about 18 percent while internal medicine, general practice, and general surgery show rates which are below. Thus, for several specialties, the Index more than adequately compensated for increases in the prices of inputs if the above assumptions as to changes in output and substitutions among inputs held.

Tables III-5 through III-8 report the cost ratios corresponding to the cost levels of the previous four Tables. Two trends are noticeable. First, the share of rent is increasing from about eight to nine percent of total cost. Second, for non-specialists -general surgery, general practice and internal medicine-the share attributable to net income has fallen somewhat. Pediatricians have actually confronted the greatest decline in net income shares from 52 to 48 percent largely due to the increases in rent and employee salaries.

Examination of Table III-8A gives a more detailed picture of the change in the cost shares across the three years. Note that most of the increase in the rental cost share occurred between 1976 and 1977. The share of costs for employee salaries generally rose more between 1977 and 1978 although the pattern of increases is somewhat irregular as is the case with supplies. On the other hand, auto expenses and malpractice premiums both showed strong trends with the former share increasing for every specialty and in nearly every year while the latter share decreased in some cases by nearly forty percent across the two years. The share attributable to physician net income has not changed much from 1976 to 1978 for general practice and internal medicine, a decline of about one percent. As a share, it has declined more for internal medicine and its specialties than for the surgical specialties. Overall, no pattern across specialties is apparent.. The irregular pattern of changes in the cost ratios suggests that if HCFA had used specialty-specific indices it would have encountered greater changes in the size of the weights.

The next four tables, Tables III-9 to III-10A, present cost means and ratios given a different definition of expenses; in these tables, physician net income includes pension contributions. Comparison of Tables III-4 and III-9 indicates that inclusion of pension payments raises physician net income between five and fifteen percent with general practitioners showing the smallest difference. Orthopedic surgeons and neurosurgeons contribute about fourteen percent of their net income to pension funds. Comparison of the net income column in Table III-4A and III-9A shows that inclusion of pension contributions raises the rate of growth of total physician income for several specialties but none by more than one to two percentage points.

Currently the Medicare Economic Index is not specialty-specific but is a single index number applied across all procedures in all regions for all specialties. Table III-11 presents the cost means and ratios for all specialties for each year along with the associated percentage changes. The cost definitions do not match those used in the Index. The two differences are that overhead in the Index currently only includes equipment expenses and physician net income equals a fixed sixty percent. Table III-11A indicates that all expenses have risen except malpractice premiums and supplies between 1976 and 1977. Note that rent and non-physician salaries rose at a faster rate than physician net income in both years. For the period mid FSY 1977 to mid FSY 1979 the cost of non-physician inputs rose at an annual rate of 7.3 percent which is slightly below the growth in the Index of 8.7 percent. The increase in total costs, including net income was 7.2 percent. Again, this comparison of the change in total costs with the change in the Index is valid under the restrictions noted above; namely, that changes in output and substitution among inputs were small during this period.

Table III-11B presents the cost ratios and although they appear reasonably stable, the percentage change numbers below indicate that insurance and net income have been declining as shares of the total while overall rent, salaries, and auto expenses have been rising. However, only salaries and net income show much stability in these trends, the former share rising two percent each year and the latter falling around one percent.

The remaining Tables display cost means and ratios not on a specialty-specific basis but rather by the type of practice organization and the practice locations. Differences in costs across practice organization type appear in Tables III-12 and 13 where the costs for solos and groups are presented separately. Note that all entries are on a per-physician basis to permit comparisons. Not surprisingly, unincorporated solos have the lowest net income and the lowest total costs. Incorporation becomes more attractive as income increases due to the greater pension allowance for corporations. Incorporated solos face higher costs for all items which suggests that these solos are more active specialists in urban areas. Members of partnerships, which are also unincorporated, have lower net income than incorporated groups and expenses are also lower.

The effect of different population and regional groupings appear in Tables III-14 through 26. Tables III-14 and 16 compare costs for practices located in areas with different populations. The population grouping refers to county population if the county is not part of an SMSA or the SMSA if it is. Physician net income in lower in the non-SMSA counties (Table III-14) than in the SMSA based counties (Table III-16) except for the very largest SMSA counties located mostly in the Northeast area which generally has lower net income. Practices in counties with populations under 25,000, which are the first two groupings in Table III-14, have lower net incomes than the remaining non-SMSA counties above 25,000 population. Most of this difference is associated with the larger concentration of general practitioners in these smaller counties. Note that the per physician practice costs for salaries are higher in the larger non-SMSA counties; this result is probably due to larger practices with greater use of nurses and other aides. Surprisingly, the cost of rent and utilities is only five to ten percent higher in the SMSA counties relative to the non-SMSA counties except that in counties in the very largest SMSAs with population over five million, the rental cost is almost twenty percent higher. Malpractice insurance is lower in the smaller counties because these counties have fewer surgical specialists.

Regional differences are reported in the remaining tables. Table

III-18 shows the cost means for the Census regions but with the Far West (Oregon, Washington and California) separated from the remainder of the West. The most noticeable statistic is the much lower physician net income in the Northeast relative to the remainder of the country and the rather high net income in the South and North Central regions. Practices in the South have higher rental costs and salaries but lower malpractice premiums. The last set of tables shows cost means and ratios on a state by state basis for 1978 only. Because of small sample size, some states in the Northeast, South and West were grouped together and appear at the bottom of each table. Again the high net incomes in the Southern states like Alabama, Mississippi and Georgia are rather surprising and suggest a greater concentration of specialists. Note that total expenses vary widely from a low of 91 thousand in Massachusetts-Connecticut-Rhode Island to over 140 thousand for several Southern states and 150 thousand in Wisconsin. In order to make the statistics from these regions and population tables more directly interpretable, other weights would be more appropriate if the actual distribution of specialties or their sampling proportions differed across states in a given region.

TABLE III-1

PHYSICIAN COST CATEGORY MEANS FOR YEAR 1976

SPECIALTY

(STANDARD DEVIATIONS IN PARENTHESES)

	N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OVERALL	(912	7604 (5579)	(1356 (5508)	4325 (5098)	(9329 (17694)	20(5 ((343)	5282 (6591)	55237 (30280)	105(51 (5100()
ALLERGY	15	(0035 (8099)	1432((7878)	8606 (6937)	31363 (28837)	(995 (((92)	2710 (3737)	63572 (36(51)	132605 (72942)
CARDIOLOGY	40	8613 (6690)	13170 (6318)	4451 (5402)	24309 (2(876)	2722 ((679)	4909 (429()	63767 (35982)	12(943 (58504)
DERMATOLOGY	45	9788 (5486)	(2407 (5279)	5(35 (5617)	2(304 (12913)	1980 (1355)	367((5719)	60590 (32531)	1(4877 (48886)
GASTROENTEROLOGY	(5	7309 (4118)	11813 (4477)	4665 (6131)	18273 (17390)	2066 (1636)	342((3034)	61830 (28389)	(09379 (41454)
GENERAL PRACTICE	508	7132 (5720)	10762 (5730)	6(36 (5617)	21684 (20549)	(946 ((199)	3716 (5925)	48270 (30555)	99649 (53062)
GENERAL SURGERY	206	6662 (3695)	(1926 (4671)	2860 (3824)	(8891 (2037()	2051 ((296)	7977 (5666)	60055 (26772)	110425 (43251)
INTERNAL MED.	238	796((6323)	1(10((4619)	4686 (5067)	20300 ((3874)	2(39 ((407)	27(3 (3((5)	53887 (24537)	102789 (42775)
NEURO-SURGERY	2(	8097 (5860)	(4960 (4970)	(68((4888)	(9408 ((4281)	2420 (1560)	(1747 (8734)	80205 (33328)	(38522 (46026)
OB-GYN	172	8400 (5620)	(3288 (5374)	3938 (4899)	(9868 ((5280)	2038 (1445)	(052((8(49)	64981 (31551)	123037 (49762)
OPHTHALMOLOGY	(3(	8384 (5259)	(1829 (5496)	444((6236)	19992 ((2252)	(89((138()	4624 (4115)	58366 (325(8)	(09529 (50892)
ORTHOPEDIC SURG.	92	(0209 (6887)	15711 (7176)	51(6 (3647)	24793 ((5487)	2568 (1675)	13100 ((0239)	73974 (40544)	(45474 (66445)
OTOLARYNGOLOGY	56	894((7025)	((84((485()	2665 (378()	22271 ((5663)	(956 ((327)	8308 (7316)	53653 (26683)	109637 (449(5)
PEDIATRICS	135	6901 (4772)	9919 (3988)	4809 (4466)	17358 (((3(()	1903 ((220)	2699 (3674)	48255 (23203)	91847 (36927)
PSYCHIATRY	177	5658 (3753)	7394 (3798)	443 ((171)	6232 (14499)	1590 (1134)	1432 (2383)	45709 (23026)	68461 (35(73)
UROLOGY	61	8480 (5438)	12506 (4857)	3200 (3410)	18396 ((7(81)	2307 (1463)	8482 (6993)	62425 (2985()	1(5800 (44977)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT (0.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-2

PHYSICIAN COST CATEGORY MEANS FOR YEAR 1977

SPECIALTY

(STANDARD DEVIATIONS IN PARENTHESES)

SPECIALTY	N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OVERALL	2627	9492	12106	4057	21007	2342	4403	58680	112090
		(7626)	(6229)	(5054)	(19647)	(1518)	(4565)	(34685)	(57679)
ALLERGY	19	12293	12256	6345	23732	2235	2456	54163	113482
		(9518)	(5595)	(5721)	(17901)	(1481)	(2000)	(29550)	(51810)
CARDIOLOGY	52	11131	12303	3833	20589	2456	3513	60091	113919
		(8543)	(4691)	(4100)	(11528)	(1470)	(2662)	(26827)	(43436)
DERMATOLOGY	68	11161	12047	3928	22353	1878	2640	57535	111544
		(7461)	(4921)	(4650)	(18292)	(1350)	(1903)	(24481)	(45570)
GASTROENTEROLOGY	19	9658	12446	3275	19260	2017	3092	65493	115244
		(7321)	(4020)	(2876)	(12675)	(1069)	(2976)	(23929)	(37229)
GENERAL PRACTICE	731	8400	10859	5264	21585	2338	2839	49256	100544
		(7356)	(5553)	(5656)	(15799)	(1510)	(2716)	(30138)	(51422)
GENERAL SURGERY	256	9575	13951	2937	19853	2691	7454	72717	129180
		(8042)	(7033)	(3928)	(23464)	(1706)	(4601)	(42677)	(65122)
INTERNAL MED.	391	9828	11552	4581	21355	2320	2632	54693	106965
		(7981)	(5530)	(5606)	(14784)	(1491)	(2540)	(31299)	(51211)
NEURO-SURGERY	26	10341	16852	1026	21096	2628	12259	91834	156039
		(7113)	(5075)	(1618)	(10924)	(1676)	(9013)	(36381)	(46991)
OB-GYN	247	10094	14424	3514	23355	2672	9075	70422	133557
		(7115)	(6079)	(3949)	(14708)	(1709)	(5535)	(37816)	(56287)
OPHTHALMOLOGY	137	11121	13808	4116	25310	2245	4647	66602	127852
		(7847)	(6953)	(5760)	(20938)	(1307)	(3506)	(41257)	(64386)
ORTHOPEDIC SURG.	115	13528	18458	5916	32482	2399	10822	87299	170908
		(8790)	(6747)	(5768)	(17140)	(1508)	(6044)	(42109)	(62471)
OTOLARYNGOLOGY	68	10607	13460	3580	23663	2042	6804	64471	124631
		(6061)	(6330)	(5561)	(18487)	(1217)	(4744)	(35513)	(58613)
PEDIATRICS	186	9551	10719	4764	20105	2178	2306	49624	99249
		(8217)	(5100)	(4264)	(25557)	(1324)	(2562)	(23817)	(47229)
PSYCHIATRY	239	7328	8067	410	9484	1927	1265	46213	74697
		(6075)	(5358)	(1322)	(28316)	(1467)	(1157)	(22972)	(49615)
UROLOGY	72	8984	13663	3436	19680	2694	6227	71820	126507
		(5508)	(4940)	(3307)	(20819)	(1361)	(3423)	(28302)	(45743)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-3

PHYSICIAN COST CATEGORY MEANS
FOR YEAR 1978

(STANDARD DEVIATIONS IN PARENTHESES)

SPECIALTY	N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OVERALL	2739	10168	13050	4429	23152	2919	4466	62647	120834
		(7821)	(6343)	(5237)	(17850)	(2514)	(4656)	(34875)	(58736)
ALLERGY	24	12563	16575	11258	37722	2711	2947	69691	153470
		(9017)	(9245)	(9111)	(28643)	(2154)	(4531)	(41080)	(85606)
CARDIOLOGY	75	10960	14613	3501	23976	3078	3864	75312	135307
		(8155)	(5764)	(4348)	(19326)	(2211)	(3853)	(33157)	(53372)
DERMATOLOGY	65	10405	12628	5178	23791	2346	2301	60278	116930
		(6704)	(5404)	(5346)	(14382)	(1568)	(2335)	(27473)	(50040)
GASTROENTEROLOGY	30	12426	15077	5461	24955	3071	3485	75121	139598
		(8438)	(5193)	(6203)	(13785)	(2433)	(3211)	(34158)	(48089)
GENERAL PRACTICE	642	9183	11529	5807	25026	2872	2720	49609	106750
		(7347)	(4833)	(5405)	(16438)	(2744)	(2796)	(22265)	(44751)
GENERAL SURGERY	281	10346	13885	3067	18280	3089	8163	71732	128567
		(8514)	(5785)	(4496)	(12242)	(2333)	(5607)	(38719)	(53569)
INTERNAL MED.	396	9990	12674	4695	24358	3007	2591	60034	117352
		(7376)	(6374)	(5395)	(18972)	(2577)	(2809)	(33136)	(59023)
NEURO-SURGERY	28	10563	18052	1393	22348	3532	10856	100402	167149
		(6671)	(7686)	(3035)	(12048)	(2680)	(4623)	(53710)	(71165)
OB-GYN	261	10549	15476	4299	25722	3281	8812	75152	143294
		(7250)	(6541)	(4495)	(15610)	(2178)	(5195)	(39510)	(60563)
OPHTHALMOLOGY	139	13859	15776	3876	28885	2381	4174	77123	146076
		(9771)	(8051)	(5567)	(22130)	(1772)	(2722)	(43940)	(74545)
ORTHOPEDIC SURG.	118	13104	20339	7111	38606	4150	10483	94530	188324
		(7937)	(7020)	(5920)	(20203)	(4931)	(5670)	(42079)	(65000)
OTOLARYNGOLOGY	79	14919	16736	4453	30618	3143	8038	77050	154961
		(10681)	(6269)	(5467)	(17789)	(1702)	(5055)	(36070)	(58048)
PEDIATRICS	229	9893	11699	5692	23276	2513	2202	53045	108323
		(6997)	(4468)	(5113)	(13808)	(1694)	(1810)	(23955)	(41378)
PSYCHIATRY	281	7035	7882	433	7455	2315	1468	46389	72980
		(5218)	(4126)	(1142)	(15063)	(1928)	(1764)	(24412)	(38209)
UROLOGY	93	10695	14248	3679	19927	3307	6291	73777	131927
		(9239)	(4602)	(3898)	(11592)	(2239)	(3720)	(32255)	(42611)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-4

PHYSICIAN COST CATEGORY MEANS

SPECIALTY		RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
ALLERGY	1976	10035	14321	8606	31363	1995	2710	63572	132605
	1977	12293	12256	6345	23732	2235	2456	54163	113482
	1978	12563	16575	11258	37722	2711	2947	69691	153470
CARDIOLOGY	1976	8613	13170	4451	24309	2722	4909	63767	121943
	1977	11131	12303	3833	20589	2456	3513	60091	113919
	1978	10960	14613	3501	23976	3078	3864	75312	135307
DERMATOLOGY	1976	9788	12407	5135	21304	1980	3671	60590	114877
	1977	11161	12047	3928	22353	1878	2640	57535	111544
	1978	10405	12628	5178	23791	2346	2301	60278	116930
GASTROENTEROLOGY	1976	7309	11813	4665	18273	2066	3421	61830	109379
	1977	9658	12446	3275	19260	2017	3092	65493	115244
	1978	12426	15077	5461	24955	3071	3485	75121	139598
GENERAL PRACTICE	1976	7132	10762	6136	21684	1946	3716	48270	99649
	1977	8400	10859	5264	21585	2338	2839	49256	100544
	1978	9183	11529	5807	25026	2872	2720	49609	106750
GENERAL SURGERY	1976	6662	11926	2860	18891	2051	7977	60055	110425
	1977	9575	13951	2937	19853	2691	7454	72717	129180
	1978	10346	13885	3067	18280	3089	8163	71732	128567
INTERNAL MED.	1976	7961	11101	4686	20300	2139	2713	53887	102789
	1977	9828	11552	4581	21355	2320	2632	54693	106965
	1978	9990	12674	4695	24358	3007	2591	60034	117352
NEURO-SURGERY	1976	8097	14960	1681	19408	2420	11747	80205	138522
	1977	10341	16852	1026	21096	2628	12259	91834	156039
	1978	10563	18052	1393	22348	3532	10856	100402	167149
OB-GYN	1976	8400	13288	3938	19868	2038	10521	64981	123037
	1977	10094	14424	3514	23355	2672	9075	70422	133557
	1978	10549	15476	4299	25722	3281	8812	75152	143294
OPHTHALMOLOGY	1976	8384	11829	4441	19992	1891	4624	58366	109529
	1977	11121	13808	4116	25310	2245	4647	66602	127852
	1978	13859	15776	3876	28885	2381	4174	77123	146076
ORTHOPEDIC SURG.	1976	10209	15711	5116	24793	2568	13100	73974	145474
	1977	13528	18458	5916	32482	2399	10822	87299	170908
	1978	13104	20339	7111	38606	4150	10483	94530	188324
OTOLARYNGOLOGY	1976	8941	11841	2665	22271	1956	8308	53653	109637
	1977	10607	13460	3580	23663	2042	6804	64471	124631
	1978	14919	16736	4453	30618	3143	8038	77050	154961
PEDIATRICS	1976	6901	9919	4809	17358	1903	2699	48255	91847
	1977	9551	10719	4764	20105	2178	2306	49624	99249
	1978	9893	11699	5692	23276	2513	2202	53045	108323
PSYCHIATRY	1976	5658	7394	443	6232	1590	1432	45709	68461
	1977	7328	8067	410	9484	1927	1265	46213	74697
	1978	7035	7882	433	7455	2315	1468	46389	72980
UROLOGY	1976	8480	12506	3200	18396	2307	8482	62425	115800
	1977	8984	13663	3436	19680	2694	6227	71820	126507
	1978	10695	14248	3679	19927	3307	6291	73777	131927

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-4A
PERCENT CHANGE IN
PHYSICIAN COST CATEGORY MEANS
(BASED ON TABLE III-4)

SPECIALTY		RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
ALLERGY	76-77	22.50	-14.42	-26.27	-24.33	12.03	-9.37	-14.80	-14.42
	77-78	2.20	35.24	77.43	58.95	21.30	19.99	28.67	35.24
CARDIOLOGY	76-77	29.23	-6.58	-13.88	-15.30	-9.77	-28.44	-5.76	-6.58
	77-78	-1.54	18.78	-8.66	16.45	25.33	9.99	25.33	18.77
DERMATOLOGY	76-77	14.03	-2.90	-23.51	4.92	-5.15	-28.08	-5.04	-2.90
	77-78	-6.77	4.82	31.82	6.43	24.92	-12.84	4.77	4.83
GASTROENTEROLOGY	76-77	32.14	5.36	-29.80	5.40	-2.37	-9.62	5.92	5.36
	77-78	28.66	21.14	66.75	29.57	52.26	12.71	14.70	21.13
GENERAL PRACTICE	76-77	17.78	0.90	-14.21	-0.46	20.14	-23.60	2.04	0.90
	77-78	9.32	6.17	10.32	15.94	22.84	-4.19	0.72	6.17
GENERAL SURGERY	76-77	43.73	16.98	2.69	5.09	31.20	-6.56	21.08	16.98
	77-78	8.05	-0.47	4.43	-7.92	14.79	9.51	-1.35	-0.47
INTERNAL MED.	76-77	23.45	4.06	-2.24	5.20	8.46	-2.99	1.50	4.06
	77-78	1.65	9.71	2.49	14.06	29.61	-1.56	9.77	9.71
NEURO-SURGERY	76-77	27.71	12.65	-38.96	8.70	8.59	4.36	14.50	12.65
	77-78	2.15	7.12	35.77	5.93	34.40	-11.44	9.33	7.12
OB-GYN	76-77	20.17	8.55	-10.77	17.55	31.11	-13.74	8.37	8.55
	77-78	4.51	7.29	22.34	10.13	22.79	-2.90	6.72	7.29
OPHTHALMOLOGY	76-77	32.65	16.73	-7.32	26.60	18.72	0.50	14.11	16.73
	77-78	24.62	14.25	-5.83	14.12	6.06	-10.18	15.80	14.25
ORTHOPEDIC SURG.	76-77	32.51	17.48	15.64	31.01	-6.58	-17.39	18.01	17.48
	77-78	-3.13	10.19	20.20	18.85	72.99	-3.13	8.28	10.19
OTOLARYNGOLOGY	76-77	18.63	13.67	34.33	6.25	4.40	-18.10	20.16	13.68
	77-78	40.65	24.34	24.39	29.39	53.92	18.14	19.51	24.34
PEDIATRICS	76-77	38.40	8.07	-0.94	15.83	14.45	-14.56	2.84	8.06
	77-78	3.58	9.14	19.48	15.77	15.38	-4.51	6.89	9.14
PSYCHIATRY	76-77	29.52	9.10	-7.45	52.18	21.19	-11.66	1.10	9.11
	77-78	-4.00	-2.29	5.61	-21.39	20.13	16.05	0.38	-2.30
UROLOGY	76-77	5.94	9.25	7.37	6.98	16.77	-26.59	15.05	9.25
	77-78	19.04	4.28	7.07	1.26	22.75	1.03	2.72	4.28

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-5

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES FOR YEAR 1976

SPECIALTY

(STANDARD DEVIATIONS IN PARENTHESES)

SPECIALTY	N	RENT & UTILITY	EQUIPMENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL	1912	0.0792	0.0140	0.0407	0.1734	0.0226	0.0494	0.5266
		(0.0528)	(0.0254)	(0.0450)	(0.1009)	(0.0184)	(0.0501)	(0.1327)
ALLERGY	15	0.0796	0.0085	0.0669	0.2103	0.0186	0.0272	0.4895
		(0.0537)	(0.0158)	(0.0463)	(0.1013)	(0.0151)	(0.0460)	(0.1290)
CARDIOLOGY	40	0.0772	0.0187	0.0366	0.1883	0.0275	0.0443	0.5181
		(0.0465)	(0.0251)	(0.0352)	(0.1264)	(0.0220)	(0.0335)	(0.1484)
DERMATOLOGY	45	0.0914	0.0120	0.0432	0.1783	0.0198	0.0321	0.5273
		(0.0444)	(0.0234)	(0.0391)	(0.0797)	(0.0166)	(0.0394)	(0.1058)
GASTROENTEROLOGY	15	0.0783	0.0217	0.0431	0.1633	0.0200	0.0330	0.5543
		(0.0598)	(0.0305)	(0.0546)	(0.1141)	(0.0164)	(0.0313)	(0.1551)
GENERAL PRACTICE	508	0.0789	0.0144	0.0641	0.2051	0.0242	0.0374	0.4823
		(0.0533)	(0.0272)	(0.0573)	(0.1014)	(0.0202)	(0.0422)	(0.1277)
GENERAL SURGERY	206	0.0651	0.0081	0.0254	0.1580	0.0206	0.0772	0.5457
		(0.0359)	(0.0143)	(0.0310)	(0.0961)	(0.0139)	(0.0541)	(0.1239)
INTERNAL MED.	238	0.0802	0.0115	0.0418	0.1895	0.0245	0.0271	0.5288
		(0.0542)	(0.0186)	(0.0336)	(0.0905)	(0.0212)	(0.0243)	(0.1168)
NEURO-SURGERY	21	0.0592	0.0098	0.0101	0.1384	0.0184	0.0917	0.5742
		(0.0342)	(0.0220)	(0.0268)	(0.0689)	(0.0123)	(0.0717)	(0.1226)
OB-GYN	172	0.0742	0.0120	0.0324	0.1614	0.0191	0.0880	0.5169
		(0.0515)	(0.0196)	(0.0437)	(0.0732)	(0.0154)	(0.0593)	(0.1192)
OPHTHALMOLOGY	131	0.0839	0.0420	0.0369	0.1894	0.0188	0.0477	0.5153
		(0.0483)	(0.0431)	(0.0437)	(0.1077)	(0.0138)	(0.0413)	(0.1279)
ORTHOPEDIC SURG.	92	0.0773	0.0181	0.0359	0.1694	0.0197	0.0921	0.4977
		(0.0552)	(0.0310)	(0.0236)	(0.0675)	(0.0130)	(0.0536)	(0.1010)
OTOLARYNGOLOGY	56	0.0850	0.0222	0.0259	0.1959	0.0206	0.0795	0.4850
		(0.0587)	(0.0300)	(0.0318)	(0.0886)	(0.0149)	(0.0630)	(0.1222)
PEDIATRICS	135	0.0813	0.0081	0.0511	0.1835	0.0240	0.0317	0.5204
		(0.0523)	(0.0159)	(0.0331)	(0.0845)	(0.0208)	(0.0388)	(0.1121)
PSYCHIATRY	177	0.0929	0.0040	0.0063	0.0711	0.0262	0.0229	0.6726
		(0.0624)	(0.0112)	(0.0137)	(0.0995)	(0.0210)	(0.0332)	(0.1226)
UROLOGY	61	0.0816	0.0149	0.0278	0.1510	0.0222	0.0720	0.5374
		(0.0664)	(0.0187)	(0.0299)	(0.0883)	(0.0154)	(0.0411)	(0.1302)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-6

MEDICARE ECONOMIC INDEX WEIGHTS
FOR PHYSICIAN COST CATEGORIES
FOR YEAR 1977

(STANDARD DEVIATIONS IN PARENTHESES)

SPECIALTY	N	RENT C UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL	2627	0.0929 (0.0660)	0.0122 (0.0212)	0.0361 (0.0398)	0.1774 (0.1030)	0.0250 (0.0198)	0.0417 (0.0427)	0.5189 (0.1314)
ALLERGY	19	0.1117 (0.0696)	0.0141 (0.0257)	0.0603 (0.0454)	0.2016 (0.0926)	0.0209 (0.0133)	0.0255 (0.0231)	0.4720 (0.1185)
CARDIOLOGY	52	0.1013 (0.0605)	0.0189 (0.0277)	0.0325 (0.0314)	0.1866 (0.0965)	0.0249 (0.0177)	0.0311 (0.0192)	0.5155 (0.1277)
DERMATOLOGY	68	0.1018 (0.0495)	0.0094 (0.0187)	0.0351 (0.0400)	0.1917 (0.0825)	0.0183 (0.0129)	0.0268 (0.0240)	0.5183 (0.1018)
GASTROENTEROLOGY	19	0.0863 (0.0671)	0.0195 (0.0267)	0.0283 (0.0237)	0.1610 (0.0834)	0.0201 (0.0144)	0.0275 (0.0238)	0.5689 (0.1142)
GENERAL PRACTICE	731	0.0922 (0.0738)	0.0101 (0.0183)	0.0514 (0.0461)	0.2062 (0.1054)	0.0280 (0.0219)	0.0326 (0.0367)	0.4816 (0.1297)
GENERAL SURGERY	256	0.0839 (0.0684)	0.0105 (0.0186)	0.0236 (0.0272)	0.1447 (0.0915)	0.0238 (0.0167)	0.0690 (0.0587)	0.5470 (0.1301)
INTERNAL MED.	391	0.0984 (0.0662)	0.0151 (0.0238)	0.0417 (0.0443)	0.1926 (0.0878)	0.0256 (0.0190)	0.0290 (0.0293)	0.5047 (0.1211)
NEURO-SURGERY	26	0.0683 (0.0388)	0.0100 (0.0217)	0.0068 (0.0097)	0.1369 (0.0636)	0.0185 (0.0139)	0.0835 (0.0585)	0.5780 (0.0904)
OB-GYN	247	0.0802 (0.0524)	0.0142 (0.0219)	0.0254 (0.0231)	0.1752 (0.0803)	0.0221 (0.0166)	0.0764 (0.0529)	0.5126 (0.1122)
OPHTHALMOLOGY	137	0.0939 (0.0514)	0.0229 (0.0293)	0.0321 (0.0390)	0.1970 (0.1025)	0.0219 (0.0156)	0.0425 (0.0329)	0.5047 (0.1247)
ORTHOPEDIC SURG.	115	0.0825 (0.0510)	0.0135 (0.0222)	0.0319 (0.0252)	0.1938 (0.0951)	0.0150 (0.0092)	0.0705 (0.0454)	0.4984 (0.1089)
OTOLARYNGOLOGY	68	0.0972 (0.0622)	0.0213 (0.0298)	0.0300 (0.0407)	0.1786 (0.0901)	0.0197 (0.0159)	0.0584 (0.0406)	0.5081 (0.1228)
PEDIATRICS	186	0.0999 (0.0629)	0.0099 (0.0178)	0.0495 (0.0385)	0.1912 (0.0899)	0.0254 (0.0220)	0.0256 (0.0240)	0.5004 (0.1120)
PSYCHIATRY	239	0.1085 (0.0736)	0.0045 (0.0134)	0.0054 (0.0139)	0.0790 (0.1153)	0.0305 (0.0263)	0.0200 (0.0202)	0.6486 (0.1359)
UROLOGY	72	0.0793 (0.0532)	0.0134 (0.0193)	0.0279 (0.0256)	0.1450 (0.0823)	0.0233 (0.0136)	0.0529 (0.0306)	0.5636 (0.0998)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-7

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES FOR YEAR 1978

(STANDARD DEVIATIONS IN PARENTHESES)

SPECIALTY	N	RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL	2739	0.0906 (0.0628)	0.0162 (0.0217)	0.0360 (0.0396)	0.1813 (0.0979)	0.0280 (0.0245)	0.0388 (0.0384)	0.5173 (0.1259)
ALLERGY	24	0.0977 (0.0774)	0.0145 (0.0193)	0.0719 (0.0530)	0.2269 (0.1031)	0.0235 (0.0249)	0.0203 (0.0206)	0.4517 (0.1043)
CARDIOLOGY	75	0.0856 (0.0639)	0.0185 (0.0202)	0.0256 (0.0311)	0.1688 (0.0923)	0.0261 (0.0210)	0.0311 (0.0346)	0.5549 (0.1050)
DERMATOLOGY	65	0.0921 (0.0469)	0.0161 (0.0181)	0.0446 (0.0466)	0.2018 (0.0698)	0.0238 (0.0198)	0.0229 (0.0257)	0.5068 (0.1165)
GASTROENTEROLOGY	30	0.0946 (0.0687)	0.0236 (0.0235)	0.0378 (0.0405)	0.1802 (0.0796)	0.0234 (0.0173)	0.0268 (0.0206)	0.5292 (0.1288)
GENERAL PRACTICE	642	0.0884 (0.0619)	0.0167 (0.0223)	0.0543 (0.0487)	0.2185 (0.0991)	0.0313 (0.0284)	0.0271 (0.0258)	0.4725 (0.1087)
GENERAL SURGERY	281	0.0848 (0.0632)	0.0136 (0.0193)	0.0237 (0.0324)	0.1434 (0.0761)	0.0267 (0.0205)	0.0722 (0.0516)	0.5412 (0.1214)
INTERNAL MED.	396	0.0938 (0.0659)	0.0169 (0.0218)	0.0378 (0.0338)	0.2008 (0.0883)	0.0288 (0.0243)	0.0253 (0.0248)	0.5054 (0.1178)
NEURO-SURGERY	28	0.0692 (0.0443)	0.0088 (0.0119)	0.0073 (0.0136)	0.1462 (0.0820)	0.0228 (0.0163)	0.0719 (0.0341)	0.5747 (0.1171)
OB-GYN	261	0.0794 (0.0506)	0.0155 (0.0204)	0.0299 (0.0277)	0.1769 (0.0732)	0.0264 (0.0216)	0.0700 (0.0505)	0.5094 (0.1142)
OPHTHALMOLOGY	139	0.1040 (0.0697)	0.0272 (0.0265)	0.0252 (0.0322)	0.1843 (0.0849)	0.0173 (0.0144)	0.0329 (0.0209)	0.5284 (0.1062)
ORTHOPEDIC SURG.	118	0.0737 (0.0414)	0.0174 (0.0224)	0.0389 (0.0347)	0.2049 (0.0776)	0.0219 (0.0192)	0.0625 (0.0382)	0.4902 (0.1099)
OTOLARYNGOLOGY	79	0.0982 (0.0610)	0.0199 (0.0216)	0.0267 (0.0267)	0.1979 (0.0815)	0.0224 (0.0146)	0.0577 (0.0380)	0.4891 (0.1103)
PEDIATRICS	229	0.0957 (0.0599)	0.0152 (0.0207)	0.0518 (0.0390)	0.2095 (0.0907)	0.0265 (0.0223)	0.0227 (0.0191)	0.4858 (0.1124)
PSYCHIATRY	281	0.1062 (0.0726)	0.0101 (0.0210)	0.0063 (0.0154)	0.0801 (0.1007)	0.0360 (0.0307)	0.0232 (0.0260)	0.6401 (0.1359)
UROLOGY	93	0.0836 (0.0688)	0.0168 (0.0216)	0.0276 (0.0299)	0.1511 (0.0775)	0.0272 (0.0233)	0.0531 (0.0373)	0.5493 (0.1288)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-8

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

SPECIALTY		RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
ALLERGY	1976	0.0796	0.0085	0.0669	0.2103	0.0186	0.0272	0.4895
	1977	0.1117	0.0141	0.0603	0.2016	0.0209	0.0255	0.4720
	1978	0.0977	0.0145	0.0719	0.2269	0.0235	0.0203	0.4517
CARDIOLOGY	1976	0.0772	0.0187	0.0366	0.1883	0.0275	0.0443	0.5181
	1977	0.1013	0.0189	0.0325	0.1866	0.0249	0.0311	0.5155
	1978	0.0856	0.0185	0.0256	0.1688	0.0261	0.0311	0.5549
DERMATOLOGY	1976	0.0914	0.0120	0.0432	0.1783	0.0198	0.0321	0.5273
	1977	0.1018	0.0094	0.0351	0.1917	0.0183	0.0268	0.5183
	1978	0.0921	0.0161	0.0446	0.2018	0.0238	0.0229	0.5068
GASTROENTEROLOGY	1976	0.0783	0.0217	0.0431	0.1633	0.0200	0.0330	0.5543
	1977	0.0863	0.0195	0.0283	0.1610	0.0201	0.0275	0.5689
	1978	0.0946	0.0236	0.0378	0.1802	0.0234	0.0268	0.5292
GENERAL PRACTICE	1976	0.0789	0.0144	0.0641	0.2051	0.0242	0.0374	0.4823
	1977	0.0922	0.0101	0.0514	0.2062	0.0280	0.0326	0.4816
	1978	0.0884	0.0167	0.0543	0.2185	0.0313	0.0271	0.4725
GENERAL SURGERY	1976	0.0651	0.0081	0.0254	0.1580	0.0206	0.0772	0.5457
	1977	0.0839	0.0105	0.0236	0.1447	0.0238	0.0690	0.5470
	1978	0.0848	0.0136	0.0237	0.1434	0.0267	0.0722	0.5412
INTERNAL MED.	1976	0.0802	0.0115	0.0418	0.1895	0.0245	0.0271	0.5288
	1977	0.0984	0.0151	0.0417	0.1926	0.0256	0.0290	0.5047
	1978	0.0938	0.0169	0.0378	0.2008	0.0288	0.0253	0.5054
NEURO-SURGERY	1976	0.0592	0.0098	0.0101	0.1384	0.0184	0.0917	0.5742
	1977	0.0683	0.0100	0.0068	0.1369	0.0185	0.0835	0.5780
	1978	0.0692	0.0088	0.0073	0.1462	0.0228	0.0719	0.5747
OB-GYN	1976	0.0742	0.0120	0.0324	0.1614	0.0191	0.0880	0.5169
	1977	0.0802	0.0142	0.0254	0.1752	0.0221	0.0764	0.5126
	1978	0.0794	0.0155	0.0299	0.1769	0.0264	0.0700	0.5094
OPHTHALMOLOGY	1976	0.0839	0.0420	0.0369	0.1894	0.0188	0.0477	0.5153
	1977	0.0939	0.0229	0.0321	0.1970	0.0219	0.0425	0.5047
	1978	0.1040	0.0272	0.0252	0.1843	0.0173	0.0329	0.5284
ORTHOPEDIC SURG.	1976	0.0773	0.0181	0.0359	0.1694	0.0197	0.0921	0.4977
	1977	0.0825	0.0135	0.0319	0.1938	0.0150	0.0705	0.4984
	1978	0.0737	0.0174	0.0389	0.2049	0.0219	0.0625	0.4902
OTOLARYNGOLOGY	1976	0.0850	0.0222	0.0259	0.1959	0.0206	0.0795	0.4850
	1977	0.0972	0.0213	0.0300	0.1786	0.0197	0.0584	0.5081
	1978	0.0982	0.0199	0.0267	0.1979	0.0224	0.0577	0.4891
PEDIATRICS	1976	0.0813	0.0081	0.0511	0.1835	0.0240	0.0317	0.5204
	1977	0.0999	0.0099	0.0495	0.1912	0.0254	0.0256	0.5004
	1978	0.0957	0.0152	0.0518	0.2095	0.0265	0.0227	0.4858
PSYCHIATRY	1976	0.0929	0.0040	0.0063	0.0711	0.0262	0.0229	0.6726
	1977	0.1085	0.0045	0.0054	0.0790	0.0305	0.0200	0.6486
	1978	0.1062	0.0101	0.0063	0.0801	0.0360	0.0232	0.6401
UROLOGY	1976	0.0816	0.0149	0.0278	0.1510	0.0222	0.0720	0.5374
	1977	0.0793	0.0134	0.0279	0.1450	0.0233	0.0529	0.5636
	1978	0.0836	0.0168	0.0276	0.1511	0.0272	0.0531	0.5493

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-8A
PERCENT CHANGE IN MEDICARE ECONOMIC INDEX WEIGHTS
(BASED ON TABLE III-8)

SPECIALTY		RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
ALLERGY	76-77	40.33	65.88	-9.87	-4.14	12.37	-6.25	-3.58
	77-78	-12.53	2.84	19.24	12.55	12.44	-20.39	-4.30
CARDIOLOGY	76-77	31.22	1.07	-11.20	-0.90	-9.45	-29.80	-0.50
	77-78	-15.50	-2.12	-21.23	-9.54	4.82	0.00	7.64
DERMATOLOGY	76-77	11.38	-21.67	-18.75	7.52	-7.58	-16.51	-1.71
	77-78	-9.53	71.28	27.07	5.27	30.05	-14.55	-2.22
GASTROENTEROLOGY	76-77	10.22	-10.14	-34.34	-1.41	0.50	-16.67	2.63
	77-78	9.62	21.03	33.57	11.93	16.42	-2.55	-6.98
GENERAL PRACTICE	76-77	16.86	-29.86	-19.81	0.54	15.70	-12.83	-0.15
	77-78	-4.12	65.35	5.64	5.97	11.79	-16.87	-1.89
GENERAL SURGERY	76-77	28.88	29.63	-7.09	-8.42	15.53	-10.62	0.24
	77-78	1.07	29.52	0.42	-0.90	12.18	4.64	-1.06
INTERNAL MED.	76-77	22.69	31.30	-0.24	1.64	4.49	7.01	-4.56
	77-78	-4.67	11.92	-9.35	4.26	12.50	-12.76	0.14
NEURO-SURGERY	76-77	15.37	2.04	-32.67	-1.08	0.54	-8.94	0.66
	77-78	1.32	-12.00	7.35	6.79	23.24	-13.89	-0.57
OB-GYN	76-77	8.09	18.33	-21.60	8.55	15.71	-13.18	-0.83
	77-78	-1.00	9.15	17.72	0.97	19.46	-8.38	-0.62
OPHTHALMOLOGY	76-77	11.92	-45.48	-13.01	4.01	16.49	-10.90	-2.06
	77-78	10.76	18.78	-21.50	-6.45	-21.00	-22.59	4.70
ORTHOPEDIC SURG.	76-77	6.73	-25.41	-11.14	14.40	-23.86	-23.45	0.14
	77-78	-10.67	28.89	21.94	5.73	46.00	-11.35	-1.65
OTOLARYNGOLOGY	76-77	14.35	-4.05	15.83	-8.83	-4.37	-26.54	4.76
	77-78	1.03	-6.57	-11.00	10.81	13.71	-1.20	-3.74
PEDIATRICS	76-77	22.88	22.22	-3.13	4.20	5.83	-19.24	-3.84
	77-78	-4.20	53.54	4.65	9.57	4.33	-11.33	-2.92
PSYCHIATRY	76-77	16.79	12.50	-14.29	11.11	16.41	-12.66	-3.57
	77-78	-2.12	124.44	16.67	1.39	18.03	16.00	-1.31
UROLOGY	76-77	-2.82	-10.07	0.36	-3.97	4.95	-26.53	4.88
	77-78	5.42	25.37	-1.08	4.21	16.74	0.38	-2.54

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-9

PHYSICIAN COST CATEGORY MEANS

	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
1976	10035	15105	8606	31363	1995	2710	70048	139865
1977	12293	12972	6345	23732	2235	2456	60075	120110
1978	12563	17651	11258	37722	2711	2947	78578	163432
1976	8613	14022	4451	24309	2722	4909	70805	129832
1977	11131	13188	3833	20589	2456	3513	67400	122113
1978	10960	15768	3501	23976	3078	3864	84847	145997
1976	9788	13171	5135	21304	1980	3671	66905	121958
1977	11161	12831	3928	22353	1878	2640	64018	118811
1978	10405	13348	5178	23791	2346	2301	66224	123597
1976	7309	12562	4665	18273	2066	3421	68014	116311
1977	9658	13254	3275	19260	2017	3092	72165	122724
1978	12426	16140	5461	24955	3071	3485	83901	149442
1976	7132	11185	6136	21684	1946	3716	51768	103571
1977	8400	11310	5264	21585	2338	2839	52982	104721
1978	9183	12032	5807	25026	2872	2720	53762	111405
1976	6662	12778	2860	18891	2051	7977	67096	118318
1977	9575	14981	2937	19853	2691	7454	81219	138711
1978	10346	14958	3067	18280	3089	8163	80592	138499
1976	7961	11788	4686	20300	2139	2713	59557	109146
1977	9828	12236	4581	21355	2320	2632	60342	113298
1978	9990	13471	4695	24358	3007	2591	66619	124734
1976	8097	16089	1681	19408	2420	11747	89522	148968
1977	10341	18086	1026	21096	2628	12259	102023	167462
1978	10563	19614	1393	22348	3532	10856	113302	181611
1976	8400	14279	3938	19868	2038	10521	73168	132215
1977	10094	15621	3514	23355	2672	9075	80311	144643
1978	10549	16769	4299	25722	3281	8812	85835	155271
1976	8384	12530	4441	19992	1891	4624	64155	116019
1977	11121	14613	4116	25310	2245	4647	73251	135307
1978	13859	16770	3876	28885	2381	4174	85327	155274
1976	10209	16969	5116	24793	2568	13100	84365	157122
1977	13528	20077	5916	32482	2399	10822	100670	185898
1978	13104	22104	7111	38606	4150	10483	109108	204668
1976	8941	12477	2665	22271	1956	8308	58906	115526
1977	10607	14363	3580	23663	2042	6804	71928	132991
1978	14919	17897	4453	30618	3143	8038	86639	165710
1976	6901	10408	4809	17358	1903	2699	52289	96369
1977	9551	11272	4764	20105	2178	2306	54190	104369
1978	9893	12344	5692	23276	2513	2202	58373	114296
1976	5658	7992	443	6232	1590	1432	50649	73999
1977	7328	8687	410	9484	1927	1265	51337	80442
1978	7035	8523	433	7455	2315	1468	51686	78919
1976	8480	13436	3200	18396	2307	8482	70099	124403
1977	8984	14850	3436	19680	2694	6227	81630	137504
1978	10695	15462	3679	19927	3307	6291	83800	143163

THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
UDES BOTH NET INCOME AND PENSIONS
SELECTION AND RESPONSE PROBABILITIES
MPUTED ON A PER PHYSICIAN BASIS

TABLE III-9A
PERCENT CHANGE IN PHYSICIAN COST CATEGORY MEANS
(BASED ON TABLE III-9)

SPECIALTY		RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
ALLERGY	76-77	22.50	-14.12	-26.27	-24.33	12.03	-9.37	-14.24	-14.12
	77-78	2.20	36.07	77.43	58.95	21.30	19.99	30.80	36.07
CARDIOLOGY	76-77	29.23	-5.95	-13.88	-15.30	-9.77	-28.44	-4.81	-5.95
	77-78	-1.54	19.56	-8.66	16.45	25.33	9.99	25.89	19.56
DERMATOLOGY	76-77	14.03	-2.58	-23.51	4.92	-5.15	-28.08	-4.32	-2.58
	77-78	-6.77	4.03	31.82	6.43	24.92	-12.84	3.45	4.03
GASTROENTEROLOGY	76-77	32.14	5.51	-29.80	5.40	-2.37	-9.62	6.10	5.51
	77-78	28.66	21.77	66.75	29.57	52.26	12.71	16.26	21.77
GENERAL PRACTICE	76-77	17.78	1.12	-14.21	-0.46	20.14	-23.60	2.34	1.11
	77-78	9.32	6.38	10.32	15.94	22.84	-4.19	1.47	6.38
GENERAL SURGERY	76-77	43.73	17.24	2.69	5.09	31.20	-6.56	21.05	17.24
	77-78	8.05	-0.15	4.43	-7.92	14.79	9.51	-0.77	-0.15
INTERNAL MED.	76-77	23.45	3.80	-2.24	5.20	8.46	-2.99	1.32	3.80
	77-78	1.65	10.09	2.49	14.06	29.61	-1.56	10.40	10.09
NEURO-SURGERY	76-77	27.71	12.41	-38.96	8.70	8.59	4.36	13.96	12.41
	77-78	2.15	8.45	35.77	5.93	34.40	-11.44	11.06	8.45
OB-GYN	76-77	20.17	9.40	-10.77	17.55	31.11	-13.74	9.76	9.40
	77-78	4.51	7.35	22.34	10.13	22.79	-2.90	6.88	7.35
OPHTHALMOLOGY	76-77	32.65	16.62	-7.32	26.60	18.72	0.50	14.18	16.62
	77-78	24.62	14.76	-5.83	14.12	6.06	-10.18	16.49	14.76
ORTHOPEDIC SURG.	76-77	32.51	18.32	15.64	31.01	-6.58	-17.39	19.33	18.31
	77-78	-3.13	10.10	20.20	18.85	72.99	-3.13	8.38	10.10
OTOLARYNGOLOGY	76-77	18.63	15.12	34.33	6.25	4.40	-18.10	22.11	15.12
	77-78	40.65	24.60	24.39	29.39	53.92	18.14	20.45	24.60
PEDIATRICS	76-77	38.40	8.30	-0.94	15.83	14.45	-14.56	3.64	8.30
	77-78	3.58	9.51	19.48	15.77	15.38	-4.51	7.72	9.51
PSYCHIATRY	76-77	29.52	8.70	-7.45	52.18	21.19	-11.66	1.36	8.71
	77-78	-4.00	-1.89	5.61	-21.39	20.13	16.05	0.68	-1.89
UROLOGY	76-77	5.94	10.52	7.37	6.98	16.77	-26.59	16.45	10.53
	77-78	19.04	4.12	7.07	1.26	22.75	1.03	2.66	4.12

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME INCLUDES BOTH NET INCOME AND PENSIONS
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-10

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

SPECIALTY		RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
ALLERGY	1976	0.0759	0.0081	0.0635	0.2003	0.0177	0.0259	0.5087
	1977	0.1061	0.0136	0.0574	0.1918	0.0198	0.0243	0.4925
	1978	0.0931	0.0138	0.0682	0.2147	0.0223	0.0193	0.4745
CARDIOLOGY	1976	0.0733	0.0179	0.0347	0.1781	0.0261	0.0420	0.5379
	1977	0.0953	0.0179	0.0304	0.1746	0.0232	0.0290	0.5395
	1978	0.0802	0.0173	0.0238	0.1574	0.0244	0.0290	0.5773
DERMATOLOGY	1976	0.0870	0.0115	0.0410	0.1690	0.0188	0.0306	0.5456
	1977	0.0965	0.0091	0.0332	0.1804	0.0172	0.0252	0.5395
	1978	0.0878	0.0154	0.0425	0.1917	0.0227	0.0218	0.5254
GASTROENTEROLOGY	1976	0.0744	0.0208	0.0410	0.1552	0.0189	0.0314	0.5711
	1977	0.0821	0.0186	0.0268	0.1521	0.0190	0.0259	0.5861
	1978	0.0894	0.0223	0.0358	0.1693	0.0219	0.0252	0.5503
GENERAL PRACTICE	1976	0.0765	0.0141	0.0621	0.1984	0.0235	0.0362	0.4953
	1977	0.0895	0.0098	0.0497	0.1992	0.0271	0.0315	0.4950
	1978	0.0855	0.0162	0.0525	0.2101	0.0301	0.0261	0.4877
GENERAL SURGERY	1976	0.0612	0.0077	0.0240	0.1488	0.0193	0.0725	0.5661
	1977	0.0792	0.0099	0.0222	0.1363	0.0224	0.0649	0.5670
	1978	0.0798	0.0128	0.0224	0.1344	0.0250	0.0678	0.5626
INTERNAL MED.	1976	0.0762	0.0108	0.0397	0.1791	0.0232	0.0255	0.5484
	1977	0.0937	0.0144	0.0397	0.1830	0.0243	0.0275	0.5239
	1978	0.0893	0.0161	0.0359	0.1907	0.0273	0.0241	0.5246
NEURO-SURGERY	1976	0.0554	0.0093	0.0095	0.1298	0.0171	0.0861	0.5941
	1977	0.0641	0.0096	0.0063	0.1282	0.0174	0.0785	0.5975
	1978	0.0645	0.0081	0.0067	0.1363	0.0212	0.0668	0.5965
OB-GYN	1976	0.0696	0.0114	0.0305	0.1514	0.0179	0.0826	0.5400
	1977	0.0752	0.0133	0.0236	0.1634	0.0206	0.0714	0.5378
	1978	0.0742	0.0146	0.0279	0.1646	0.0246	0.0654	0.5353
OPHTHALMOLOGY	1976	0.0800	0.0410	0.0349	0.1811	0.0178	0.0454	0.5327
	1977	0.0897	0.0218	0.0306	0.1879	0.0209	0.0406	0.5223
	1978	0.0994	0.0259	0.0237	0.1747	0.0164	0.0313	0.5465
ORTHOPEDIC SURG.	1976	0.0724	0.0176	0.0334	0.1579	0.0184	0.0860	0.5240
	1977	0.0765	0.0127	0.0295	0.1800	0.0139	0.0655	0.5266
	1978	0.0684	0.0163	0.0361	0.1899	0.0203	0.0579	0.5193
OTOLARYNGOLOGY	1976	0.0813	0.0214	0.0250	0.1869	0.0197	0.0760	0.5031
	1977	0.0923	0.0205	0.0283	0.1692	0.0187	0.0552	0.5284
	1978	0.0925	0.0189	0.0252	0.1868	0.0211	0.0544	0.5121
PEDIATRICS	1976	0.0779	0.0078	0.0489	0.1757	0.0229	0.0304	0.5362
	1977	0.0957	0.0095	0.0473	0.1827	0.0242	0.0244	0.5177
	1978	0.0913	0.0145	0.0494	0.1997	0.0253	0.0217	0.5046
PSYCHIATRY	1976	0.0865	0.0037	0.0059	0.0662	0.0245	0.0214	0.6875
	1977	0.1014	0.0043	0.0051	0.0741	0.0284	0.0186	0.6645
	1978	0.0994	0.0095	0.0059	0.0753	0.0335	0.0217	0.6562
UROLOGY	1976	0.0770	0.0141	0.0262	0.1419	0.0207	0.0674	0.5588
	1977	0.0735	0.0126	0.0259	0.1349	0.0216	0.0489	0.5873
	1978	0.0786	0.0158	0.0258	0.1406	0.0255	0.0495	0.5719

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME INCLUDES BOTH NET INCOME AND PENSIONS
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-10A
PERCENT CHANGE IN
MEDICARE ECONOMIC INDEX WEIGHTS
(BASED ON TABLE III-10)

SPECIALTY		RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
ALLERGY	76-77	39.79	67.90	-9.61	-4.24	11.86	-6.18	-3.18
	77-78	-12.25	1.47	18.82	11.94	12.63	-20.58	-3.65
CARDIOLOGY	76-77	30.01	0.00	-12.39	-1.97	-11.11	-30.95	0.30
	77-78	-15.84	-3.35	-21.71	-9.85	5.17	0.00	7.01
DERMATOLOGY	76-77	10.92	-20.87	-19.02	6.75	-8.51	-17.65	-1.12
	77-78	-9.02	69.23	28.01	6.26	31.98	-13.49	-2.61
GASTROENTEROLOGY	76-77	10.35	-10.58	-34.63	-2.00	0.53	-17.52	2.63
	77-78	8.89	19.89	33.58	11.31	15.26	-2.70	-6.11
GENERAL PRACTICE	76-77	16.99	-30.50	-19.97	0.40	15.32	-12.98	-0.06
	77-78	-4.47	65.31	5.63	5.47	11.07	-17.14	-1.47
GENERAL SURGERY	76-77	29.41	28.57	-7.50	-8.40	16.06	-10.48	0.16
	77-78	0.76	29.29	0.90	-1.39	11.61	4.47	-0.78
INTERNAL MED.	76-77	22.97	33.33	0.00	2.18	4.74	7.84	-4.47
	77-78	-4.70	11.81	-9.57	4.21	12.35	-12.36	0.13
NEURO-SURGERY	76-77	15.70	3.23	-33.68	-1.23	1.75	-8.83	0.57
	77-78	0.62	-15.63	6.35	6.32	21.84	-14.90	-0.17
OB-GYN	76-77	8.05	16.67	-22.62	7.93	15.08	-13.56	-0.41
	77-78	-1.33	9.77	18.22	0.73	19.42	-8.40	-0.46
OPHTHALMOLOGY	76-77	12.12	-46.83	-12.32	3.75	17.42	-10.57	-1.95
	77-78	10.81	18.81	-22.55	-7.03	-21.53	-22.91	4.63
ORTHOPEDIC SURG.	76-77	5.66	-27.84	-11.68	14.00	-24.46	-23.84	0.50
	77-78	-10.59	28.35	22.37	5.50	46.04	-11.60	-1.39
OTOLARYNGOLOGY	76-77	13.53	-4.21	13.20	-9.47	-5.08	-27.37	5.03
	77-78	0.22	-7.80	-10.95	10.40	12.83	-1.45	-3.08
PEDIATRICS	76-77	22.85	21.79	-3.27	3.98	5.68	-19.74	-3.45
	77-78	-4.60	52.63	4.44	9.30	4.55	-11.07	-2.53
PSYCHIATRY	76-77	17.23	16.22	-13.56	11.93	15.92	-13.08	-3.35
	77-78	-1.97	120.93	15.69	1.62	17.96	16.67	-1.25
UROLOGY	76-77	-4.55	-10.64	-1.15	-4.93	4.35	-27.45	5.10
	77-78	6.94	25.40	-0.39	4.23	18.06	1.23	-2.62

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME INCLUDES BOTH NET INCOME AND PENSIONS
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-11A

PHYSICIAN COST CATEGORY MEANS

(STANDARD DEVIATIONS IN PARENTHESES)

SURVEY YEAR	N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
1976	1912	7604 (5579)	11356 (5508)	4325 (5098)	19329 (17694)	2015 (1343)	5282 (6591)	55237 (30280)	105151 (51001)
1977	2627	9492 (7626)	12106 (6229)	4057 (5054)	21007 (19647)	2342 (1518)	4403 (4565)	58680 (34685)	112090 (57679)
1978	2739	10168 (7821)	13050 (6343)	4429 (5237)	23152 (17850)	2919 (2514)	4466 (4656)	62647 (34875)	120834 (58736)
YEAR TO YEAR PERCENT CHANGE IN MEANS									
1976-1977		24.83	6.60	- 6.20	8.68	16.23	-16.64	6.23	6.60
1977-1978		7.12	7.80	9.17	10.21	24.64	1.43	6.76	7.80

TABLE III-11B

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

(STANDARD DEVIATIONS IN PARENTHESES)

SURVEY YEAR	N	RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
1976	1912	0.0792 (0.0528)	0.0140 (0.0254)	0.0407 (0.0450)	0.1734 (0.1009)	0.0226 (0.0184)	0.0494 (0.0501)	0.5266 (0.1327)
1977	2627	0.0929 (0.0660)	0.0122 (0.0212)	0.0361 (0.0398)	0.1774 (0.1030)	0.0250 (0.0198)	0.0417 (0.0427)	0.5189 (0.1314)
1978	2739	0.0906 (0.0628)	0.0162 (0.0217)	0.0360 (0.0396)	0.1813 (0.0979)	0.0280 (0.0245)	0.0388 (0.0384)	0.5173 (0.1259)
YEAR TO YEAR PERCENT CHANGE IN WEIGHTS								
1976-1977		17.30	-12.86	-11.30	2.31	10.62	-15.59	- 1.46
1977-1978		- 2.48	32.79	- 0.28	2.20	12.00	- 6.95	- 0.31

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-12

PHYSICIAN COST CATEGORY MEANS

(STANDARD DEVIATIONS IN PARENTHESES)

TYPE OF PRACTICE BY SURVEY YEAR		N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OVERALL		7081	9290 (7295)	12258 (6144)	4261 (5157)	21339 (18600)	2476 (1957)	4652 (5225)	59219 (33866)	113499 (56895)
INCORP SOLO	76	387	9268 (6197)	13295 (6074)	4945 (5929)	25304 (24761)	2051 (1353)	5310 (5547)	62927 (32998)	123102 (56241)
	77	550	11341 (8364)	13780 (6397)	4576 (5645)	25799 (24626)	2534 (1706)	4725 (4690)	64837 (33793)	127596 (59238)
	78	689	12032 (8424)	14982 (6352)	4895 (5503)	27449 (20394)	3454 (3064)	5324 (4637)	70587 (35423)	138727 (58817)
UNINCORP SOLO	76	914	7108 (5535)	9284 (4561)	3955 (5043)	15131 (14588)	1925 (1217)	3911 (5668)	44651 (24143)	85968 (42239)
	77	1245	9019 (7597)	9755 (5551)	3622 (4865)	16796 (18220)	2125 (1335)	3240 (3561)	45764 (29491)	90323 (51404)
	78	1152	9378 (7829)	9893 (4955)	3637 (4948)	17015 (15057)	2468 (1770)	3335 (4106)	45877 (24807)	91605 (45884)
INCORP GROUP SAME SPEC&INC	76	197	8373 (5330)	14089 (4966)	4573 (5069)	22334 (13758)	2309 (1750)	7774 (7335)	71001 (27349)	130457 (45988)
	77	308	9220 (6540)	14889 (4928)	4549 (5588)	25136 (17278)	2585 (1477)	6777 (5782)	74706 (29537)	137865 (45631)
	78	322	10313 (6823)	16598 (6242)	4860 (4468)	29905 (17054)	3405 (2540)	5761 (4958)	82844 (36643)	153688 (57797)
INCORP GROUP OTHER	76	171	7383 (5215)	14046 (5999)	4705 (4761)	22221 (16508)	2179 (1363)	9275 (9945)	70242 (36978)	130055 (55551)
	77	250	8996 (7269)	16209 (6944)	4867 (4830)	27059 (17519)	2581 (1599)	6010 (5107)	84360 (43666)	150085 (64303)
	78	321	10056 (6895)	16882 (6298)	5587 (6007)	29847 (17878)	3313 (3451)	5690 (5549)	84934 (38406)	156312 (58320)
PARTNERSHIP	76	157	6306 (4550)	12366 (4696)	3982 (3287)	21513 (12312)	1882 (1203)	6233 (6776)	62213 (29461)	114499 (43487)
	77	227	8566 (7174)	11967 (4438)	3530 (3934)	19328 (12578)	2421 (1684)	4719 (4640)	60268 (27148)	110802 (41092)
	78	191	8675 (6480)	13003 (4753)	4946 (5382)	21903 (13126)	2329 (1560)	3829 (3230)	65711 (27371)	120398 (44008)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-13

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

(STANDARD DEVIATIONS IN PARENTHESES)

TYPE OF PRACTICE BY SURVEY YEAR		N	RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL		7081	0.0890 (0.0620)	0.0142 (0.0227)	0.0373 (0.0415)	0.1775 (0.1006)	0.0255 (0.0213)	0.0426 (0.0435)	0.5202 (0.1298)
INCORP SOLO	76	387	0.0815 (0.0493)	0.0164 (0.0278)	0.0401 (0.0499)	0.1922 (0.1060)	0.0183 (0.0125)	0.0460 (0.0453)	0.5139 (0.1422)
	77	550	0.0937 (0.0590)	0.0155 (0.0240)	0.0363 (0.0421)	0.1917 (0.1074)	0.0227 (0.0171)	0.0400 (0.0441)	0.5076 (0.1359)
	78	689	0.0905 (0.0563)	0.0182 (0.0216)	0.0337 (0.0340)	0.1908 (0.1022)	0.0273 (0.0237)	0.0403 (0.0365)	0.5094 (0.1301)
UNINCORP SOLO	76	914	0.0896 (0.0589)	0.0138 (0.0260)	0.0445 (0.0499)	0.1624 (0.1063)	0.0266 (0.0210)	0.0459 (0.0521)	0.5231 (0.1381)
	77	1245	0.1085 (0.0740)	0.0113 (0.0213)	0.0384 (0.0429)	0.1701 (0.1111)	0.0288 (0.0226)	0.0397 (0.0437)	0.5065 (0.1400)
	78	1152	0.1073 (0.0736)	0.0174 (0.0237)	0.0382 (0.0468)	0.1680 (0.1049)	0.0318 (0.0266)	0.0387 (0.0427)	0.5082 (0.1342)
INCORP GROUP SAME SPEC&INC	76	197	0.0669 (0.0391)	0.0146 (0.0238)	0.0333 (0.0329)	0.1683 (0.0718)	0.0186 (0.0147)	0.0567 (0.0447)	0.5481 (0.0999)
	77	308	0.0675 (0.0415)	0.0130 (0.0196)	0.0327 (0.0376)	0.1821 (0.0822)	0.0200 (0.0122)	0.0497 (0.0388)	0.5399 (0.1064)
	78	322	0.0698 (0.0430)	0.0123 (0.0187)	0.0322 (0.0264)	0.1952 (0.0807)	0.0248 (0.0228)	0.0381 (0.0308)	0.5318 (0.1124)
INCORP GROUP OTHER	76	171	0.0613 (0.0412)	0.0113 (0.0209)	0.0353 (0.0321)	0.1723 (0.0826)	0.0191 (0.0141)	0.0681 (0.0567)	0.5359 (0.1210)
	77	250	0.0625 (0.0461)	0.0120 (0.0189)	0.0327 (0.0273)	0.1830 (0.0887)	0.0188 (0.0114)	0.0418 (0.0339)	0.5533 (0.1077)
	78	321	0.0668 (0.0403)	0.0154 (0.0193)	0.0346 (0.0346)	0.1905 (0.0843)	0.0223 (0.0182)	0.0383 (0.0340)	0.5396 (0.1048)
PARTNERSHIP	76	157	0.0568 (0.0385)	0.0106 (0.0220)	0.0351 (0.0267)	0.1907 (0.0910)	0.0176 (0.0114)	0.0527 (0.0495)	0.5392 (0.1170)
	77	227	0.0788 (0.0554)	0.0095 (0.0185)	0.0323 (0.0323)	0.1716 (0.0836)	0.0240 (0.0208)	0.0460 (0.0483)	0.5392 (0.1163)
	78	191	0.0714 (0.0432)	0.0107 (0.0159)	0.0403 (0.0402)	0.1789 (0.0755)	0.0228 (0.0203)	0.0329 (0.0272)	0.5458 (0.1022)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-14

PHYSICIAN COST CATEGORY MEANS

(STANDARD DEVIATIONS IN PARENTHESES)

AMA COUNTY GROUP BY SURVEY YEAR		N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OVERALL		1476	8519	12282	5393	23065	2328	3763	58367	113719
			(7198)	(5451)	(5714)	(15569)	(1960)	(3944)	(31387)	(50472)
NON-SMSA 0-9999	76	34	8669	10545	7523	19926	1627	4389	44957	97639
			(7917)	(4420)	(6356)	(14151)	(1019)	(4368)	(21940)	(40925)
	77	40	7029	10580	5761	21815	2701	3434	46643	97966
			(4941)	(4636)	(6124)	(13831)	(1662)	(2364)	(24927)	(42929)
	78	30	9936	12378	10277	21858	2896	3148	54118	114614
			(11339)	(4700)	(9850)	(10964)	(1894)	(4374)	(22475)	(43524)
NON-SMSA 10000-24999	76	83	6928	11345	6365	22607	1858	4021	51920	105047
			(6572)	(4390)	(5464)	(13012)	(1116)	(3354)	(29734)	(40648)
	77	154	8117	11991	5442	20515	2378	3051	59532	111029
			(6485)	(5254)	(6272)	(13102)	(1556)	(3033)	(30593)	(48652)
	78	118	10649	12484	6638	26723	2669	3065	53362	115593
			(9179)	(4991)	(6349)	(20572)	(2022)	(2822)	(27085)	(46217)
NON-SMSA 25000-49999	76	119	6651	12218	6662	24553	2053	4182	56808	113130
			(5305)	(4722)	(6765)	(17678)	(1370)	(3937)	(25206)	(43721)
	77	128	8897	12968	5740	23988	2185	3694	62603	120079
			(7051)	(6145)	(6244)	(16677)	(1412)	(3491)	(33041)	(56898)
	78	148	8814	13411	5269	25701	3114	3872	63990	124174
			(5878)	(5491)	(5596)	(14957)	(4013)	(3086)	(33635)	(50842)
NON-SMSA >50000	76	122	6110	11383	4088	21273	2110	3584	56850	105400
			(3977)	(6827)	(4121)	(16514)	(1391)	(3903)	(42043)	(63219)
	77	179	9228	11857	4366	20336	2204	3759	58037	109789
			(7887)	(5639)	(4632)	(13384)	(1528)	(3668)	(32252)	(52219)
	78	204	9421	13197	4696	25509	2326	4171	62871	122194
			(7630)	(5348)	(4631)	(16293)	(1640)	(5726)	(29053)	(49521)
POTENTIAL SMSA	76	33	8033	12802	4412	20339	1762	5871	65318	118541
			(5462)	(6322)	(4843)	(9548)	(1259)	(6410)	(42955)	(58542)
	77	38	9841	11145	3482	19594	1966	3989	53171	103192
			(8719)	(4198)	(3568)	(10652)	(1172)	(3746)	(25496)	(38871)
	78	44	9338	12314	4164	21700	2304	3419	60779	114021
			(9675)	(5051)	(4443)	(15774)	(1794)	(2932)	(25326)	(46771)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-15

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

(STANDARD DEVIATIONS IN PARENTHESES)

AMA COUNTY GROUP BY SURVEY YEAR		N	RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL		1476	0.0787 (0.0601)	0.0145 (0.0225)	0.0479 (0.0475)	0.2002 (0.0971)	0.0235 (0.0209)	0.0339 (0.0311)	0.5078 (0.1229)
NON-SMSA 0-9999	76	34	0.0831 (0.0577)	0.0068 (0.0114)	0.0751 (0.0518)	0.1886 (0.1098)	0.0234 (0.0278)	0.0446 (0.0352)	0.4771 (0.1395)
	77	40	0.0820 (0.0812)	0.0215 (0.0315)	0.0655 (0.0687)	0.2089 (0.1114)	0.0330 (0.0242)	0.0337 (0.0224)	0.4689 (0.1155)
	78	30	0.0798 (0.0637)	0.0145 (0.0201)	0.0891 (0.0973)	0.1955 (0.0814)	0.0263 (0.0182)	0.0296 (0.0391)	0.4717 (0.0975)
NON-SMSA 10000-24999	76	83	0.0714 (0.0666)	0.0179 (0.0334)	0.0581 (0.0466)	0.2245 (0.1262)	0.0194 (0.0131)	0.0391 (0.0297)	0.4796 (0.1496)
	77	154	0.0781 (0.0547)	0.0147 (0.0251)	0.0466 (0.0447)	0.1829 (0.0867)	0.0263 (0.0229)	0.0287 (0.0259)	0.5293 (0.1187)
	78	118	0.0910 (0.0627)	0.0161 (0.0216)	0.0583 (0.0518)	0.2238 (0.1166)	0.0265 (0.0221)	0.0283 (0.0308)	0.4641 (0.1317)
NON-SMSA 25000-49999	76	119	0.0604 (0.0433)	0.0120 (0.0190)	0.0576 (0.0519)	0.2156 (0.0829)	0.0197 (0.0137)	0.0388 (0.0347)	0.4999 (0.1045)
	77	128	0.0793 (0.0578)	0.0129 (0.0211)	0.0470 (0.0478)	0.1987 (0.0989)	0.0217 (0.0181)	0.0319 (0.0262)	0.5134 (0.1193)
	78	148	0.0752 (0.0540)	0.0156 (0.0190)	0.0440 (0.0471)	0.2074 (0.1005)	0.0282 (0.0327)	0.0319 (0.0239)	0.5052 (0.1230)
NON-SMSA >500000	76	122	0.0648 (0.0397)	0.0129 (0.0242)	0.0424 (0.0403)	0.2018 (0.1018)	0.0233 (0.0172)	0.0367 (0.0370)	0.5230 (0.1373)
	77	179	0.0880 (0.0661)	0.0100 (0.0162)	0.0397 (0.0395)	0.1823 (0.0896)	0.0231 (0.0203)	0.0346 (0.0310)	0.5242 (0.1147)
	78	204	0.0824 (0.0640)	0.0195 (0.0231)	0.0393 (0.0343)	0.2013 (0.0828)	0.0214 (0.0172)	0.0334 (0.0345)	0.5143 (0.1088)
POTENTIAL SMSA	76	33	0.0718 (0.0465)	0.0120 (0.0213)	0.0396 (0.0432)	0.1796 (0.0701)	0.0164 (0.0123)	0.0465 (0.0407)	0.5381 (0.1084)
	77	38	0.1022 (0.0808)	0.0071 (0.0169)	0.0350 (0.0375)	0.1964 (0.0968)	0.0226 (0.0181)	0.0368 (0.0312)	0.4991 (0.1400)
	78	44	0.0819 (0.0734)	0.0193 (0.0261)	0.0358 (0.0361)	0.1748 (0.0902)	0.0217 (0.0171)	0.0324 (0.0275)	0.5453 (0.1218)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-16

PHYSICIAN COST CATEGORY MEANS

(STANDARD DEVIATIONS IN PARENTHESES)

AMA COUNTY GROUP BY SURVEY YEAR		N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OVERALL		7277	9251 (7295)	12265 (6129)	4268 (5137)	21374 (18540)	2474 (1955)	4658 (5218)	59272 (33780)	113564 (56749)
NON-SMSA OR POTENT'L SMSA	76	392	6832 (5551)	11677 (5529)	5678 (5686)	22359 (15550)	1968 (1293)	4122 (4139)	55485 (33787)	108124 (51193)
	77	540	8712 (7194)	12015 (5521)	5042 (5622)	21315 (14067)	2270 (1501)	3534 (3379)	58358 (31215)	111248 (51121)
	78	544	9545 (8000)	12984 (5252)	5537 (5818)	25315 (16714)	2645 (2608)	3732 (4294)	60463 (29598)	120225 (48635)
SMSA 50000-499999	76	377	8536 (5983)	12233 (5122)	4621 (5150)	21051 (13721)	2105 (1466)	5444 (6537)	59277 (29817)	113271 (47432)
	77	515	9370 (7250)	12895 (5655)	4124 (4761)	23747 (18632)	2292 (1474)	4130 (3967)	62836 (32058)	119396 (52368)
	78	537	10322 (7644)	14198 (6788)	4682 (5426)	26921 (20515)	2860 (2113)	4259 (4133)	68219 (37412)	131463 (62854)
SMSA 500000-999999	76	270	7733 (5317)	10488 (4622)	4417 (5631)	16766 (11439)	1751 (1196)	4180 (4754)	51776 (27808)	97114 (42796)
	77	318	9374 (7811)	12077 (6937)	3916 (5266)	21653 (26694)	2386 (1469)	3844 (4047)	58574 (36667)	111829 (64234)
	78	315	9970 (6567)	13653 (6232)	4876 (5492)	22684 (15147)	3157 (2790)	4134 (3685)	67940 (35405)	126417 (57707)
SMSA 1000000-4999999	76	581	7355 (5602)	11175 (5658)	3377 (4006)	18191 (21681)	2021 (1319)	5964 (8289)	55388 (29762)	103473 (52390)
	77	876	9905 (8061)	12069 (6122)	3851 (4933)	20530 (20308)	2326 (1489)	4945 (5192)	58121 (33325)	111751 (56689)
	78	992	10116 (7793)	12475 (6425)	3691 (4442)	20885 (16227)	2883 (2173)	4507 (4734)	60951 (36027)	115509 (59489)
SMSA >5000000	76	292	7814 (5095)	10962 (6215)	3929 (5209)	17689 (20057)	2197 (1388)	6293 (6654)	52613 (28614)	101499 (57547)
	77	378	9920 (7471)	11273 (7351)	3155 (4439)	17403 (18766)	2517 (1695)	5228 (5313)	54885 (42871)	104385 (68064)
	78	351	11227 (8790)	12484 (6783)	4015 (5487)	20859 (20347)	3327 (3373)	6104 (5957)	57572 (33119)	115590 (62811)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-17

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

(STANDARD DEVIATIONS IN PARENTHESES)

AMA COUNTY GROUP BY SURVEY YEAR		N	RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL		7277	0.0885 (0.0618)	0.0142 (0.0226)	0.0373 (0.0412)	0.1778 (0.1006)	0.0255 (0.0215)	0.0426 (0.0435)	0.5204 (0.1297)
NON-SMSA OR POTENT'L SMSA	76	392	0.0670 (0.0499)	0.0131 (0.0241)	0.0529 (0.0475)	0.2078 (0.1013)	0.0208 (0.0164)	0.0394 (0.0350)	0.5041 (0.1299)
	77	540	0.0837 (0.0637)	0.0127 (0.0218)	0.0450 (0.0460)	0.1894 (0.0934)	0.0244 (0.0209)	0.0324 (0.0279)	0.5172 (0.1195)
	78	544	0.0821 (0.0620)	0.0174 (0.0218)	0.0472 (0.0489)	0.2054 (0.0969)	0.0247 (0.0236)	0.0316 (0.0308)	0.5012 (0.1204)
SMSA 50000-499999	76	377	0.0789 (0.0455)	0.0200 (0.0339)	0.0408 (0.0454)	0.1827 (0.0833)	0.0214 (0.0183)	0.0474 (0.0462)	0.5209 (0.1180)
	77	515	0.0838 (0.0578)	0.0106 (0.0183)	0.0347 (0.0356)	0.1960 (0.1004)	0.0215 (0.0147)	0.0370 (0.0381)	0.5191 (0.1212)
	78	537	0.0840 (0.0570)	0.0152 (0.0189)	0.0361 (0.0398)	0.1956 (0.0980)	0.0254 (0.0223)	0.0344 (0.0343)	0.5166 (0.1208)
SMSA 500000-999999	76	270	0.0860 (0.0514)	0.0115 (0.0229)	0.0478 (0.0628)	0.1732 (0.0934)	0.0199 (0.0139)	0.0413 (0.0378)	0.5239 (0.1463)
	77	318	0.0913 (0.0563)	0.0138 (0.0231)	0.0356 (0.0393)	0.1808 (0.1089)	0.0263 (0.0217)	0.0363 (0.0337)	0.5217 (0.1298)
	78	315	0.0855 (0.0546)	0.0178 (0.0241)	0.0374 (0.0364)	0.1765 (0.0824)	0.0279 (0.0235)	0.0342 (0.0305)	0.5307 (0.1191)
SMSA 1000000-4999999	76	581	0.0798 (0.0579)	0.0118 (0.0209)	0.0329 (0.0352)	0.1607 (0.1025)	0.0237 (0.0198)	0.0537 (0.0570)	0.5412 (0.1350)
	77	876	0.0974 (0.0721)	0.0117 (0.0200)	0.0348 (0.0401)	0.1709 (0.1005)	0.0243 (0.0177)	0.0460 (0.0439)	0.5188 (0.1375)
	78	992	0.0946 (0.0624)	0.0150 (0.0214)	0.0310 (0.0343)	0.1707 (0.0971)	0.0293 (0.0241)	0.0400 (0.0365)	0.5266 (0.1268)
SMSA >5000000	76	292	0.0884 (0.0532)	0.0144 (0.0237)	0.0335 (0.0325)	0.1409 (0.1098)	0.0270 (0.0209)	0.0644 (0.0616)	0.5378 (0.1325)
	77	378	0.1096 (0.0686)	0.0136 (0.0248)	0.0287 (0.0326)	0.1473 (0.1122)	0.0311 (0.0253)	0.0561 (0.0612)	0.5192 (0.1474)
	78	351	0.1076 (0.0754)	0.0177 (0.0239)	0.0314 (0.0365)	0.1564 (0.1035)	0.0337 (0.0293)	0.0574 (0.0563)	0.5056 (0.1409)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-19

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

(STANDARD DEVIATIONS IN PARENTHESES)

U.S. REGIONS BY SURVEY YEAR		N	RENT & UTILITY	EQUIP-MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
OVERALL		7277	0.0885 (0.0618)	0.0142 (0.0226)	0.0373 (0.0412)	0.1778 (0.1006)	0.0255 (0.0215)	0.0426 (0.0435)	0.5204 (0.1297)
NORTH EAST	76	515	0.0833 (0.0558)	0.0124 (0.0232)	0.0344 (0.0425)	0.1396 (0.0987)	0.0260 (0.0202)	0.0503 (0.0495)	0.5585 (0.1249)
	77	709	0.1024 (0.0672)	0.0133 (0.0224)	0.0319 (0.0351)	0.1448 (0.0988)	0.0310 (0.0249)	0.0488 (0.0554)	0.5331 (0.1300)
	78	672	0.0980 (0.0690)	0.0154 (0.0223)	0.0311 (0.0380)	0.1445 (0.0918)	0.0333 (0.0253)	0.0471 (0.0465)	0.5380 (0.1303)
SOUTH	76	565	0.0777 (0.0503)	0.0157 (0.0280)	0.0450 (0.0464)	0.1857 (0.0898)	0.0212 (0.0189)	0.0385 (0.0483)	0.5240 (0.1294)
	77	778	0.0899 (0.0668)	0.0116 (0.0208)	0.0409 (0.0418)	0.1942 (0.0983)	0.0222 (0.0163)	0.0309 (0.0307)	0.5139 (0.1255)
	78	920	0.0895 (0.0638)	0.0166 (0.0215)	0.0384 (0.0388)	0.1946 (0.0935)	0.0268 (0.0249)	0.0294 (0.0279)	0.5133 (0.1216)
NORTH CENTRAL	76	446	0.0759 (0.0515)	0.0133 (0.0239)	0.0453 (0.0498)	0.1851 (0.0964)	0.0230 (0.0175)	0.0483 (0.0436)	0.5144 (0.1301)
	77	614	0.0847 (0.0647)	0.0108 (0.0189)	0.0378 (0.0423)	0.1844 (0.1024)	0.0235 (0.0175)	0.0413 (0.0373)	0.5204 (0.1338)
	78	591	0.0831 (0.0580)	0.0154 (0.0207)	0.0382 (0.0424)	0.1881 (0.0981)	0.0258 (0.0244)	0.0354 (0.0370)	0.5215 (0.1241)
WEST	76	96	0.0746 (0.0498)	0.0184 (0.0327)	0.0413 (0.0467)	0.1985 (0.1320)	0.0188 (0.0134)	0.0419 (0.0437)	0.5170 (0.1660)
	77	147	0.0952 (0.0624)	0.0176 (0.0277)	0.0499 (0.0550)	0.2015 (0.0910)	0.0244 (0.0224)	0.0428 (0.0355)	0.4782 (0.1296)
	78	142	0.0852 (0.0545)	0.0214 (0.0256)	0.0478 (0.0526)	0.1956 (0.1000)	0.0246 (0.0214)	0.0361 (0.0307)	0.5028 (0.1289)
FAR WEST	76	291	0.0815 (0.0546)	0.0134 (0.0232)	0.0365 (0.0359)	0.1833 (0.1069)	0.0203 (0.0159)	0.0732 (0.0573)	0.4974 (0.1339)
	77	379	0.0941 (0.0637)	0.0115 (0.0200)	0.0260 (0.0276)	0.1833 (0.1115)	0.0219 (0.0157)	0.0508 (0.0425)	0.5160 (0.1387)
	78	413	0.0939 (0.0581)	0.0159 (0.0209)	0.0312 (0.0325)	0.1970 (0.1012)	0.0265 (0.0221)	0.0518 (0.0421)	0.4917 (0.1239)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

TABLE III-20
FOR YEAR 1978

FOR INDIVIDUAL STATES

PHYSICIAN COST CATEGORY MEANS

(STANDARD DEVIATIONS IN PARENTHESES)

STATE	N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
ALABAMA	54	11642	17605	8009	35750	3140	4344	82519	163012
		(7566)	(6658)	(6765)	(20565)	(1520)	(3735)	(37866)	(61651)
CALIFORNIA	320	11231	14152	4211	27309	3376	7016	63739	131036
		(7401)	(6812)	(5302)	(20766)	(3646)	(7031)	(34001)	(63074)
FLORIDA	138	11671	14166	4786	26396	2926	4320	66904	131170
		(7746)	(7712)	(4698)	(22858)	(2101)	(3549)	(41026)	(71412)
GEORGIA	86	11941	15361	4171	28121	3375	3275	75988	142235
		(7525)	(6545)	(4009)	(16542)	(5025)	(2594)	(42358)	(60602)
ILLINOIS	126	11623	12992	3830	21626	2617	5067	62538	120295
		(10690)	(5627)	(5218)	(16912)	(1595)	(4828)	(27667)	(52104)
INDIANA	44	11545	14254	5768	26156	3498	2777	67980	131980
		(9299)	(5741)	(4610)	(19735)	(1904)	(2467)	(28981)	(53161)
IOWA	27	9710	14003	5772	26014	2997	4012	67149	129661
		(7775)	(5483)	(5341)	(19370)	(2217)	(3720)	(30407)	(50767)
KENTUCKY	30	9339	15198	6288	24756	2894	3671	78571	140720
		(5326)	(7622)	(6458)	(13649)	(3509)	(3988)	(49035)	(70579)
MICHIGAN	91	8982	13154	4010	21900	2511	3936	67298	121794
		(5452)	(5342)	(4699)	(15608)	(1925)	(4101)	(30088)	(49462)
MINNESOTA	29	8176	13525	5305	26833	2361	3694	65332	125229
		(4437)	(5984)	(4253)	(17394)	(1354)	(2673)	(32033)	(55414)
MISSISSIPPI	33	9836	14073	6691	28299	2597	1908	66897	130303
		(8861)	(4694)	(8450)	(14969)	(1620)	(1372)	(27442)	(43467)
MISSOURI	64	11047	13755	4866	26301	2375	3285	65727	127359
		(9038)	(6373)	(5266)	(23108)	(1822)	(3035)	(35884)	(59014)
NEW JERSEY	114	8910	12142	4510	18317	3435	5911	59197	112424
		(5434)	(5156)	(5106)	(14159)	(2248)	(4741)	(28383)	(47747)
NEW YORK	267	9963	10752	3244	15065	2861	5452	52217	99557
		(8088)	(5199)	(4735)	(12474)	(2080)	(5822)	(29224)	(48146)
OHIO	114	10906	13752	4665	24729	3547	5858	63876	127337
		(8431)	(5576)	(4643)	(15645)	(3475)	(5491)	(31940)	(51633)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-20

(CONTINUED)

PHYSICIAN COST CATEGORY MEANS

(STANDARD DEVIATIONS IN PARENTHESES)

STATE	N	RENT & UTILITY	OVER-HEAD	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME	TOTAL COSTS
OREGON	42	15272	14643	4777	28343	2909	7502	62132	135580
		(12344)	(5667)	(4868)	(19183)	(1902)	(4260)	(28483)	(52474)
PENNSYLVANIA	145	6991	10185	2797	13584	2723	3586	54437	94305
		(6931)	(5450)	(3435)	(10736)	(2009)	(3711)	(32739)	(50468)
TENNESSEE	36	9860	13225	4404	24985	2139	2651	65184	122451
		(6283)	(6058)	(4681)	(17959)	(1393)	(2239)	(34642)	(56091)
VIRGINIA	73	10613	14205	5659	23173	3399	4135	70344	131530
		(8046)	(7821)	(6728)	(16808)	(3037)	(3743)	(40808)	(72423)
WASHINGTON	51	9028	12474	5145	24199	2264	4500	57887	115501
		(6764)	(4821)	(6434)	(16948)	(1461)	(3300)	(25639)	(44643)
WEST VIRGINIA	28	10047	13160	3937	25083	2172	4564	62885	121850
		(4717)	(4554)	(5190)	(12855)	(1215)	(3859)	(25965)	(42171)
WISCONSIN	56	9728	16908	5698	29343	2844	3886	88143	156554
		(7111)	(8017)	(6315)	(20135)	(2780)	(3397)	(51946)	(74237)
MAINE-N.H.-VT.	36	10341	10332	2261	17617	2015	3058	50043	95672
		(12182)	(4729)	(2491)	(14697)	(1788)	(2800)	(27310)	(43786)
MASS.-CONN.-R.I.	110	8960	9905	2263	15080	2803	2504	50200	91718
		(4935)	(4347)	(3456)	(10671)	(1882)	(2651)	(25855)	(40249)
DEL.-D.C.-MD.	113	10028	10883	3032	16422	3342	3950	53110	100769
		(8225)	(5510)	(3437)	(14978)	(2778)	(3840)	(31214)	(51021)
NO.&SO. CAROLINA	104	9355	12700	4981	25462	2532	1528	61031	117592
		(7752)	(4814)	(4808)	(12901)	(1722)	(1700)	(25757)	(44574)
ARK.-LA.	72	8970	14857	5441	29893	2879	3685	71838	137565
		(6124)	(7842)	(5715)	(21009)	(1908)	(3887)	(47086)	(72616)
OKLAHOMA-TEXAS	153	10693	14049	5255	26870	2825	4048	66341	130083
		(7940)	(8083)	(6485)	(19674)	(1697)	(3792)	(45573)	(74842)
KAN-NEB-N.D.-S.D	40	7827	13377	5169	31597	2394	2692	60803	123862
		(7952)	(5444)	(4576)	(19823)	(1330)	(2274)	(29524)	(50413)
IDA-MONT-WY-COLO	142	9340	12665	5786	23742	2591	3974	59172	117273
ARIZ-N.M.-UT-NEV		(7148)	(5070)	(5996)	(15613)	(2059)	(3273)	(28688)	(46949)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
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COST LEVELS ARE COMPUTED ON A PER PHYSICIAN BASIS

TABLE III-21
FOR YEAR 1978

FOR INDIVIDUAL STATES

MEDICARE ECONOMIC INDEX WEIGHTS FOR PHYSICIAN COST CATEGORIES

(STANDARD DEVIATIONS IN PARENTHESES)

STATE	N	RENT & UTILITY	EQUIP- MENT	SUPPLY	NON-MD SALARY	AUTO	MALPR INSUR	MD NET INCOME
ALABAMA	54	0.0772 (0.0480)	0.0217 (0.0250)	0.0465 (0.0323)	0.2178 (0.0935)	0.0217 (0.0122)	0.0294 (0.0243)	0.4995 (0.1119)
CALIFORNIA	320	0.0935 (0.0563)	0.0158 (0.0210)	0.0291 (0.0299)	0.1951 (0.1034)	0.0278 (0.0237)	0.0530 (0.0449)	0.4935 (0.1270)
FLORIDA	138	0.0984 (0.0682)	0.0179 (0.0205)	0.0350 (0.0274)	0.1945 (0.0990)	0.0268 (0.0221)	0.0366 (0.0285)	0.5007 (0.1336)
GEORGIA	86	0.0925 (0.0531)	0.0154 (0.0181)	0.0306 (0.0269)	0.1986 (0.0821)	0.0247 (0.0344)	0.0234 (0.0168)	0.5222 (0.1232)
ILLINOIS	126	0.0955 (0.0684)	0.0143 (0.0207)	0.0292 (0.0342)	0.1687 (0.0883)	0.0258 (0.0238)	0.0447 (0.0451)	0.5282 (0.1238)
INDIANA	44	0.0814 (0.0428)	0.0127 (0.0160)	0.0504 (0.0459)	0.1893 (0.0835)	0.0294 (0.0177)	0.0226 (0.0198)	0.5188 (0.1157)
IOWA	27	0.0753 (0.0517)	0.0188 (0.0245)	0.0531 (0.0598)	0.1867 (0.0858)	0.0326 (0.0399)	0.0308 (0.0247)	0.5134 (0.1147)
KENTUCKY	30	0.0829 (0.0882)	0.0156 (0.0174)	0.0469 (0.0474)	0.1841 (0.0667)	0.0233 (0.0303)	0.0264 (0.0185)	0.5284 (0.1191)
MICHIGAN	91	0.0780 (0.0407)	0.0178 (0.0250)	0.0306 (0.0304)	0.1689 (0.1012)	0.0233 (0.0197)	0.0352 (0.0436)	0.5560 (0.1319)
MINNESOTA	29	0.0677 (0.0262)	0.0086 (0.0097)	0.0573 (0.0714)	0.2074 (0.0791)	0.0241 (0.0243)	0.0310 (0.0201)	0.5043 (0.1190)
MISSISSIPPI	33	0.0840 (0.0851)	0.0260 (0.0362)	0.0474 (0.0520)	0.2168 (0.0952)	0.0216 (0.0141)	0.0144 (0.0079)	0.5078 (0.1099)
MISSOURI	64	0.0934 (0.0681)	0.0122 (0.0152)	0.0388 (0.0455)	0.2028 (0.1134)	0.0206 (0.0166)	0.0257 (0.0202)	0.5107 (0.1303)
NEW JERSEY	114	0.0861 (0.0521)	0.0155 (0.0208)	0.0385 (0.0365)	0.1518 (0.0845)	0.0352 (0.0280)	0.0553 (0.0409)	0.5251 (0.1113)
NEW YORK	267	0.1091 (0.0781)	0.0169 (0.0231)	0.0311 (0.0389)	0.1377 (0.0910)	0.0341 (0.0272)	0.0584 (0.0572)	0.5216 (0.1417)
OHIO	114	0.0888 (0.0636)	0.0188 (0.0247)	0.0371 (0.0344)	0.1914 (0.0943)	0.0310 (0.0303)	0.0473 (0.0452)	0.4965 (0.1160)

EDITED CASES FROM THE PHYSICIANS PRACTICE COST SURVEY WITH COMPLETE COST DATA
OVERHEAD INCLUDES EQUIPMENT AND IS IMPUTED AT 10.8 PERCENT OF TOTAL COSTS
MD NET INCOME EXCLUDES PENSIONS AS A SEPARATE ITEM
CASES WEIGHTED BY SELECTION AND RESPONSE PROBABILITIES
COST SHARES ARE COMPUTED ON A FIRM-WIDE BASIS

SECTION IV

MULTIVARIATE ANALYSIS OF COST SHARES

Multivariate analysis of variance (abbreviated MANOVA) allows the testing of the effect of one or more factors such as specialty or region on several dependent variables such as several cost shares. In the standard one-way analysis of variance, the researcher tests the influence of one factor with two or more levels or categories on one dependent variable; an example would be a test of the influence of specialty on one of the several cost shares with each of the several specialties entering as different categories. In fact, during preliminary analysis of the data, such ANOVAs were performed on each cost share separately, and strongly significant differences appeared for all cost shares across specialties (all F-statistics were significant at the .001 level). MANOVA with one factor resembles several one-way analyses of variance but performed simultaneously.

MANOVA tests whether a factor has a significant impact on all dependent variables taken together, in this case the cost shares. Not all cost shares are included because the cost shares by definition are constrained to equal one: it is sufficient to test whether the differences appear across all cost shares except one and the test results are independent of which is omitted. More formally, MANOVA tests whether the 6 cost shares are simultaneously equal across all specialties; the hypothesis is of equal specialty effect vectors.

The results of the MANOVA tests appear in Tables IV-1 to IV-12. These Tables comprise three sets of four Tables each with the first three in each set displaying the results for each of the years separately (1976-1978) and the last one in each set showing the results for all years combined with a categorical variable labelled 'year' added to measure year effects. Tables IV-1 through IV-4 present the statistical results for the basic model which includes only three main effects and an interaction term. The three main effects are those of specialty designation, the census region of the practice location and the population size classification of the SMSA in which the practice is located. In Table IV-4, which reports the combined Survey results, the variable 'year' is added. The sole interaction term of region and population measures the combined effects of these two variables having controlled for their independent effect. All main effects in all four Tables are significant at probability levels less than one in ten thousand.

Specialty effects are very strong. One might hypothesize that the specialty effect is due primarily to the difference between the internists and the surgeons with the latter having a more hospital oriented and less office based practice. However, examination of the cost share tables (e.g., Table III-8) shows that surgeons share of net income is if anything a little lower than internists', meaning surgeons' share going to office based expenses is comparable or a little higher. Furthermore, in the previous Reports, we showed results which tested for homogeneity within the surgical specialties and internal medicine specialties. Surprisingly, both showed strong specialty effects across cost shares even within these population sub-groups. Therefore, we can conclude that physician cost shares do differ quite significantly across specialty, and that they do differ across the regions and population groupings. Note also that the year effect is quite strong indicating that a shift in cost shares across these three years has occurred.

The next group of Tables adds practice characteristics to the previous model. These variables include the effects of incorporation, group practice, patient visits and the extent of participation in the Medicare Part B program. These variables are included for different reasons. A physician usually incorporates to reduce taxes owed, and thus the incidence of incorporation is strongly related to the physician's net income. (One of those tax advantages is that incorporated physicians can start deferred benefit programs for retirement which allow a much larger deduction for retirement contributions with much greater flexibility over the account's management.) Thus, incorporated status is a proxy variable for relatively high current or expected net income. The group practice variable is included because other studies have indicated that physicans in group practices utilize employee aides more efficiently. Patient visits enter as a measure of the effect of output on the various cost shares. The extent of Part B Medicare participation might influence the distribution of cost shares if older patients require additional time with the physician and less time with employees to explain their problems (c.f. Tables V-8 and V-10). In the individual year results, Tables IV-5 to IV-7, all these variables show significance at probability levels less than .0001 except for the Medicare participation variable. In Table IV-8, all variables including the year variable enter significantly at the .0001 level.

To account for specialty-based differences, the current single Medicare Economic Index could be disaggregated to form multiple specialty-specific indices. However, most physicians function in the dual role of specialist and generalist; for instance, an internist might practice as a cardiology specialist in sixty percent of visits but as a general internist in the remaining forty. Determining the exact specialty content of a practice would be difficult for Medicare which does not have complete records of all physician visits. Implementing specialty-specific Indices would be easier if the specialties were grouped into the three aggregate categories: surgeons, internists, and general practitioners. This grouping eliminates most of the problems of mixed specialty content. Tables IV-9 through IV-12 include as a specialty variable this three way grouping to determine if specialty differences still appear. The results indicate that in both the individual years and the combined years, specialty differences persist at the same probability levels.

The MANOVA results indicate that significant differences in cost shares exist across specialties, regions, population categories, and practice characteristics. On its own, the strength of this significance suggests that separate Indices could be warranted. However, the previous Section showed that these cost share differences are small in absolute value.

Also note that the cost shares are of interest because of their use in the Medicare Economic Index. The Index is a function of both the cost shares and price changes. Recall also that the non-physician inputs have cost shares which have been updated annually. If differences in these cost shares have been primarily a function of movements in relative prices, then these changes will be offsetting to some extent. As the price of one input increases relative to the others, the firm will gradually substitute away toward the other less expensive inputs. The share of those inputs experiencing larger price increases will decline. Consequently, the Index value itself may not show as much change. This offsetting change in prices and cost shares would be expected to occur across different regions and SMSAs. The next Section investigates some of the systematic differences in the value of the Index itself.

TABLE IV-1

THE EFFECT OF SPECIALTY, REGION, AND POPULATION SIZE CATEGORIES ON COST SHARE DISTRIBUTION

1976 SURVEY

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=1912)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	20.99	0.0001
BLSPOP	4.03	0.0001
REGION	6.44	0.0001
INTERACTION		
BLSPOP*REGION	1.63	0.0024

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE IV-2

THE EFFECT OF SPECIALTY, REGION, AND POPULATION SIZE CATEGORIES ON COST SHARE DISTRIBUTION

1977 SURVEY

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=2627)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	27.49	0.0001
BLSPOP	4.74	0.0001
REGION	12.73	0.0001
INTERACTION		
BLSPOP*REGION	2.21	0.0001

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE IV-3

THE EFFECT OF SPECIALTY, REGION, AND POPULATION SIZE CATEGORIES ON COST SHARE DISTRIBUTION

1978 SURVEY

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=2739)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	33.72	0.0001
BLSPOP	7.57	0.0001
REGION	13.29	0.0001
INTERACTION		
BLSPOP*REGION	1.82	0.0002

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE IV-4

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND SURVEY YEAR ON COST SHARE DISTRIBUTION

ALL YEARS (1976-1978)

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=7278)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	66.74	0.0001
BLSPOP	12.31	0.0001
REGION	35.60	0.0001
YEAR	27.08	0.0001
INTERACTION		
BLSPOP*REGION	5.15	0.0001

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

YEAR: THREE SURVEY YEARS
1. 1976
2. 1977
3. 1978

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE IV-5

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

1976 SURVEY

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=1833)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	13.30	0.0001
BLSPOP	5.07	0.0001
REGION	9.93	0.0001
INCORP	8.53	0.0001
GROUP	17.29	0.0001
PATVIS	15.66	0.0001
MEDICARE	1.15	0.3327
INTERACTION		
BLSPOP*REGION	3.65	0.0001

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-6

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

1977 SURVEY

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=2453)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	17.89	0.0001
BLSPOP	5.70	0.0001
REGION	10.66	0.0001
INCORP	12.06	0.0001
GROUP	20.32	0.0001
PATVIS	46.78	0.0001
MEDICARE	0.98	0.4273
INTERACTION		
BLSPOP*REGION	3.05	0.0001

FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATIENT OFFICE VISITS
: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-7

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

1978 SURVEY

(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=2609)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	23.56	0.0001
BLSPOP	5.79	0.0001
REGION	12.61	0.0001
INCORP	11.08	0.0001
GROUP	19.23	0.0001
PATVIS	30.50	0.0001
MEDICARE	3.53	0.0037
INTERACTION		
BLSPOP*REGION	1.72	0.0008

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-8

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, SURVEY YEAR, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

ALL YEARS (1976-1978)
(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=6895)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPECALL	51.42	0.0001
BLSPOP	12.08	0.0001
REGION	27.52	0.0001
YEAR	28.05	0.0001
INCORP	25.94	0.0001
GROUP	54.78	0.0001
PATVIS	85.33	0.0001
MEDICARE	2.95	0.0001
INTERACTION		
BLSPOP*REGION	3.96	0.0001

SPECALL: FIFTEEN SPECIALTY CATEGORIES
1. ALLERGY
2. CARDIOVASCULAR DISEASE
3. DERMATOLOGY
4. GASTROENTEROLOGY
5. GENERAL PRACTICE
6. GENERAL SURGERY
7. INTERNAL MEDICINE
8. NEUROLOGICAL SURGERY
11. OBSTETRICS-GYNECOLOGY
12. OPHTHALMOLOGY
13. ORTHOPEDIC SURGERY
14. OTOLARYNGOLOGY
15. PEDIATRICS
16. PSYCHIATRY
17. UROLOGY

YEAR: THREE SURVEY YEARS
1. 1976
2. 1977
3. 1978

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-9

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

SURVEY YEAR 1976
(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=1152)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPEC3	29.13	0.0001
BLSPOP	4.37	0.0001
REGION	7.32	0.0001
INCORP	5.71	0.0001
GROUP	13.30	0.0001
PATVIS	15.12	0.0001
MEDICARE	1.82	0.1054
INTERACTION		
BLSPOP*REGION	3.37	0.0001

SPEC3: THREE SPECIALTY CATEGORIES
1. GENERAL PRACTICE
2. INTERNAL MEDICINE AND SPECIALTIES
3. SURGERY AND SURGERY SPECIALTIES
(NO PEDIATRICIANS, OBSTETRICIANS, OR PSYCHIATRISTS INCLUDED)

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-10

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

SURVEY YEAR 1977
(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=1469)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPEC3	35.31	0.0001
BLSPOP	5.02	0.0001
REGION	7.30	0.0001
INCORP	7.06	0.0001
GROUP	13.30	0.0001
PATVIS	39.10	0.0001
MEDICARE	2.07	0.0662
INTERACTION		
BLSPOP*REGION	2.64	0.0001

SPEC3: THREE SPECIALTY CATEGORIES
1. GENERAL PRACTICE
2. INTERNAL MEDICINE AND SPECIALTIES
3. SURGERY AND SURGERY SPECIALTIES.
(NO PEDIATRICIANS, OBSTETRICIANS, OR PSYCHIATRISTS INCLUDED)

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-11

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

SURVEY YEAR 1978
(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=1542)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPEC3	50.75	0.0001
BLSPOP	2.98	0.0001
REGION	8.81	0.0001
INCORP	7.11	0.0001
GROUP	10.93	0.0001
PATVIS	27.59	0.0001
MEDICARE	3.64	0.0029
INTERACTION		
BLSPOP*REGION	1.48	0.0126

SPEC3: THREE SPECIALTY CATEGORIES
1. GENERAL PRACTICE
2. INTERNAL MEDICINE AND SPECIALTIES
3. SURGERY AND SURGERY SPECIALTIES
(NO PEDIATRICIANS, OBSTETRICIANS, OR PSYCHIATRISTS INCLUDED)

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-12

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, SURVEY YEAR, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

ALL YEARS (1976-1978)
(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=4163)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPEC3	108.38	0.0001
BLSPOP	7.88	0.0001
REGION	17.96	0.0001
YEAR	16.39	0.0001
INCORP	16.79	0.0001
GROUP	35.04	0.0001
PATVIS	74.74	0.0001
MEDICARE	4.27	0.0001
INTERACTION		
BLSPOP*REGION	3.34	0.0001

SPEC3: THREE SPECIALTY CATEGORIES
1. GENERAL PRACTICE
2. INTERNAL MEDICINE AND SPECIALTIES
3. SURGERY AND SURGERY SPECIALTIES
(NO PEDIATRICIANS, OBSTETRICIANS, OR PSYCHIATRISTS INCLUDED)

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

YEAR: THREE SURVEY YEARS
1. 1976
2. 1977
3. 1978

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

TABLE IV-12

THE EFFECT OF SPECIALTY, REGION, POPULATION SIZE CATEGORIES, SURVEY YEAR, AND OTHER PRACTICE CHARACTERISTICS INCLUDING MEDICARE SHARE IN TOTAL CASE LOAD ON COST SHARE DISTRIBUTION

ALL YEARS (1976-1978)
(COST SHARES ARE DEFINED ON A FIRM-WIDE BASIS)
(N=4163)

MANOVA EFFECTS	WILK'S CRITERION	PROBABILITY LEVEL
MAIN EFFECTS		
SPEC3	108.38	0.0001
BLSPOP	7.88	0.0001
REGION	17.96	0.0001
YEAR	16.39	0.0001
INCORP	16.79	0.0001
GROUP	35.04	0.0001
PATVIS	74.74	0.0001
MEDICARE	4.27	0.0001
INTERACTION		
BLSPOP*REGION	3.34	0.0001

SPEC3: THREE SPECIALTY CATEGORIES
1. GENERAL PRACTICE
2. INTERNAL MEDICINE AND SPECIALTIES
3. SURGERY AND SURGERY SPECIALTIES
(NO PEDIATRICIANS, OBSTETRICIANS, OR PSYCHIATRISTS INCLUDED)

REGION: FOUR U.S. CENSUS REGIONS
1. NORTH-EASTERN U.S. CENSUS REGION
2. SOUTHERN U.S. CENSUS REGION
3. NORTH-CENTRAL U.S. CENSUS REGION
4. WESTERN U.S. CENSUS REGION

YEAR: THREE SURVEY YEARS
1. 1976
2. 1977
3. 1978

INCORP: INCORPORATED/UNINCORPORATED
1. INCORPORATED
2. UNINCORPORATED

GROUP: FIRM IS SOLO/FIRM IS GROUP
1. SOLO
2. GROUP

BLSPOP: FIVE B.L.S. POPULATION CATEGORIES (SMSA-BASED)
1. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION LESS THAN 50,000 (1970 CENSUS)
2. COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
3. COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
4. COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
5. COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

PATVIS: PATIENT OFFICE VISITS
MEDICARE: PERCENT OF PATIENTS WITH PART-B MEDICARE INSURANCE

SECTION V

REGRESSION ANALYSIS OF COST SHARES

The results from the previous Section show that the distribution of practice costs depends on some basic practice characteristics. These characteristics include the physician's specialty, the practice size, location, and type of organization. These results from Section IV are based on statistics from multivariate analyses of variance. While these statistics indicate that practice characteristics do significantly affect the distribution of practice costs, the statistics do not identify which characteristics impact on which cost share. To identify these relationships requires other statistical techniques such as multiple comparison or regression analysis. This Section reports some results from the estimaton of regressions in which the cost shares are the dependent variables.

In Section IV, the basic null hypothesis states that a given practice characteristic has no effect on the set of cost shares, given the effect of all other characteristics. This is a composite hypothesis because the test of a given effect applies to all cost shares taken together not each share taken separately. While multivariate analysis of variance is designed to test such composite hypotheses, regression analysis can test either the composite or separate hypotheses. However, if the tests are properly constructed, the tests statistics for the

the multivariate analysis because again the purpose is to supplement that analysis by determining the partial effect of each of these variables on the cost shares. In the basic model, Tables V-1 to V-5, these variables include the physicians's specialty, the practice location, and the year categorical variable. Practice location is a proxy for area differences in input prices, particularly rent. Physician specialty partly controls for differences in patient problems and treatment. In the extended model Tables V-6 to V-10, other variables enter. The effect of economies of scale may appear in the visit variables or the group/solo variable. The Medicare variable identifies the impact of this program on practice cost shares. The incorporation variable is a partial proxy for the combined effects of expected future net income (with higher income physicians preferring to leave funds in the corporation and pay the lower corporate rate), of physician retirement preference (with older physicians preferring the higher deductibility allowed under the corporate defined benefit pension plan), and of the presence of non-practice income (from rental or other investment sources).

These cost share equations are not derived from a cost function and therefore do not include the price variables which appear, for instance, in the estimation of the cost share equations for the translog cost function. Translog cost functions for each specialty were estimated and described in the Base Year Report, which relied on data from the 1976 Survey. The 1977 Survey only includes employee wages and no other prices. Their absence restricts estimation of cost function parameters. In general, omitting a variable will likely bias the estimated coefficients on the included variables and interpreting the coefficient on the employee wage (or imputed physician wage) variable is difficult because any bias will lead to biased estimates of elasticities of substitution. Because of data limitations, the estimated equations should not be viewed as even an approximation to a structural cost function but simply as behavioral functions.

Because the same set of variables appears in all five cost share equations, system estimation is not necessary. In this case, the errors in the equations are not dependent except that they sum to zero, a restriction again accounted for by the omission of one share equation in the estimation. The error terms are probably not normally distributed due to the form and distribution of the dependent variables. Examination of the Kolmogorov-Smirnov statistic indicates that neither the cost shares nor a logit transformation are normally distributed.

Tables V-1 through V-5 replicate the structure of the basic MANOVA model using the combined three year sample. In these Tables, the three-way specialty grouping is used rather than the fifteen specialty grouping. The dependent variables in Tables V-1 through V-20 are in percentage not ratio form to make examination of the coefficients easier. The intercept term represents the effect for North Central general practitioners in rural areas in 1976. In Table V-1, we see that the rental percentage of total expenses has increased in both 1977 and 1978 although it rose less rapidly in 1978. Note also that the percentage rises with increases in the SMSA population which seems plausible. Conversely, Table V-3 indicates that the employee salary percentage has not changed over time and declines significantly with increases in population size. Surgeons appear to spend a much smaller percentage on employee salaries. The percentage applicable to malpractice insurance premiums has fallen significantly from 1976 to 1978: in 1977, the percentage fell to 2.32 and in 1978 to 2.04. The percentage for surgeons is nearly double that of general practitioners. Among the census regions, the South has the lowest malpractice percentage. Finally, we see that in Table V-5, the net income percentage has fallen over time but the effect is not significant. Both surgeons and internists have a percentage significantly higher than general practitioners (about 55 vs. 50 percent). Net income shares are lower in both the South and West with the difference between West and Northeast being nearly four percent.

The expanded model in Tables V-6 to V-10 adds several practice and area characteristic variables. The intercept term represents the effect for an unincorporated, non-board certified, male general practitioner in the rural North Central region in 1976, and must be adjusted for age, and the other continuous variables. Addition of these variables generally does not change the sign or significance of most of the basic variables in Tables V-1 to V-5. The specialty effects are reduced particularly for rent and net income. The most consistently significant variable is the number of patient visits; an increase in the number of patient visits is associated with a larger percentage for supplies and employee salaries and smaller shares for rent and net income. Note, patient visits are counted on a weekly basis.

One of the other significant added variables is physician age; increased age raises the share for net income and reduces the share attributable to rent. (Note that the effect of age on the net income percent peaks at age 53 and declines thereafter while the rental percentage declines until age 57 and increases thereafter.) Board certification lowers the share for malpractice premiums by .43 percentage points, but that it increases the net income share by .89 points. Female physicians receive a much lower percentage in net income and pay more for employee salaries. As expected, incorporated physicians have a higher percentage for net income of .27 points primarily because of the advantages incorporation offers for pension contributions. Incorporated physicians pay a smaller share for rent and malpractice premiums. Also note that physicians in a group practice receive a much higher percentage in net income, 4.02 points, and pay much less for rent and employee salaries, -2.45 and -1.19 points respectively. Finally, a higher percentage of Medicare patients reduces the share of expenses for rent, salaries, and malpractice premiums but increases the share for net income; for a practice with one-third Medicare Part B patients, the physician has a percentage point increase in net income share. Of the added area characteristics, note that an increase in per capita income increases the share for malpractice premiums. An increase in the physician population ratio reduces the share for net income.

The next set of five Tables, V-11 through V-15 show the results for solo practitioners only. The sample size falls from 4163 to 2754. The estimated coefficients for the variables in nearly all equations have the same sign; the magnitudes change although in most cases not significantly. This overall result is not surprising because solo practitioners constitute nearly two-thirds of the entire sample. In the two equations for rent and salaries, a variable was added to indicate if the physician shared the expenses. In both cases, this variable increased the expense share significantly, in the case of rent by .66 percentage points and in the case of salaries by 3.77 points. These results are somewhat surprising unless these physicians faced much higher rental and salary expenses in those areas relative to the prices paid for the other inputs. However, the population and regional variables should capture some of that effect and indeed the population variables are strongly significant. A larger SMSA means a small share in employee salaries and a larger share for rent. Note that there is a control for practice size, the number of patient visits, which significantly reduces the rental share and increases the salary share. The signs on the share variables are puzzling and could indicate that these physicians are sharing laboratory facilities and the aides necessary to operate it. On the other hand, it could indicate that these physicians jointly own the building and share employee labor in an informal partnership. The coefficients might then indicate that these informal partnerships are less efficient. If so, then their expenditure shares are different than physicians who are part of a formal group; note the negative coefficient on group practice in Table V-8. Finally, it might indicate that as separate solos, they faced even higher costs due, for instance, to a lease, and shared expenses to reduce expenses somewhat.

The regional variables in Tables V-1 through V-15 obscure some of the state by state differences in practice expense patterns. Regions are somewhat arbitrary groupings and states do differ significantly within the regions. Tables V-16 to V-20 present an analysis of variance with specialty, population, state and year categorical variables. The states which entered the intercept are the less populated Midwest and Rocky Mountain states of Montana, Wyoming, Idaho, Nevada, and North and South Dakota. Very few of the state coefficients are significant for rental share; New York physicians pay a significantly larger share than these Western doctors but note that so do physicians in New Mexico and West Virginia. The difference between a pair of states is found by subtracting coefficients. A surprising result is the much stronger pattern of significance for supplies; most non-Western doctors pay a smaller share for supplies. One might have thought supplies formed a more national market than rent or salaries but the share difference might relate to patient volume, which is consistent with the significant coefficient on patient visits in Table V-7. There are, as expected, strongly significant differences among the specialties with general practitioners using a larger share than all specialties except allergy. These differences also appear in the salary, malpractice, and net income equations.

Not surprisingly, there are very significant differences among the states in the share for malpractice premiums with doctors in California, New Jersey and New York having the largest shares. Physicians in the South have smaller shares, particularly in Alabama, Mississippi and Georgia. A California neurosurgeon in an SMSA of between 1 and 2 million people paid 9.33 percent of total expenses as malpractice premiums in 1978, while one in Louisiana paid 6.55 percent and one in Georgia 5.66. Note that percentage variation explained is much higher for the malpractice equation relative to the other four share equations.

In contrast to malpractice, the net income equation has few significant state coefficients. Interestingly, the South and North Central states generally have higher shares relative to the Western states as represented by the intercept term. Analyzing the determinants of the share of net income is useful to ascertain whether the weights of the Medicare Economic Index should be a function of regional or practice characteristics. However, it is also interesting to examine the variation in net income itself and Tables V-21 and V-22 show results for two differently specified net income equations. Table V-21 reports the estimated coefficients from an earnings function which includes the effect of experience, hours worked during the year, some practice and other characteristics as well as the regional population and specialty categorical variables from the models in the previous Tables. Note that the percent of variation explained is nearly 35 percent and that most of the personal and practice characteristics are highly significant. The dependent variable is in natural log units. The net income is approximately $45,000 for a solo unincorporated male general practitioner located in the rural North Central region aged 50 (with 20 years experience) practicing 50 hours each week for 48 weeks and seeing 80 patients each week in the office. Interestingly, controlling for the county population (POPESTCR), increases in the SMSA population are associated with decreases in net income. Note that the county's per capita income is positively related to net income and that increases in the physician/population ratio are weakly associated with a drop in net income. With the specification of a log dependent variable, Board certification adds $7800 to net income at $60,000, but only $5,900 at $45,000. This non-linear effect is stronger for sex-differential in net income; holding all other characteristics constant, a female will earn $32,000 if the male earns $50,000 but $39,000 if the male earns $60,000.

The following Table V-22 presents a linear model of net income. The year effect is very strong adding $3600 in 1977 and $6800 in 1978 to a base salary of $44,500 in 1976 for a general practitioner in the rural West. The Southern states have significantly higher net incomes relative to the West and the Northeast. The difference between Louisiana and New York exceeds $20,000, a result consistent with Table III-20. Only about one-fourth of the state coefficients are significant at the conventional 95% level.

Another way to analyze the effect of practice characteristics on the Medicare Economic Index is to construct a physician specific share index, the sum of the products of the physician's own cost share weights and the corresponding prices from the Index itself. The standard way to construct an observation specific index is to form the product of the observation's prices and the population index weights; this index construction allows prices to vary but assumes a uniform, unchanging technology across observations. At the request of the HCFA staff, we have formed this alternative index which assumes a varying technology (i.e., different shares) but fixed prices across all physicians; we call this a share index. The construction of this share index followed the same rules used in the selection of variables in the Index itself. Consequently, to construct a physician specific index value for FSY (Fee Screen Year) 1981, we formed the sum of the product of 1976 weights (from the 1976 Survey) and 1979 prices; for FSY 1982, the product of 1977 weights and 1980 prices; and for FSY 1983, the product of 1978 weights and 1981 prices. The 1979 and 1980 prices used are reported in Table I-1 under the colums 1981 and 1982 respectively which were the Fee Screen Years in which these prices were used. The 1983 prices are not recorded in Table I-1 because they have not been used yet. In fact, they have not been published as of the date of this report and were obtained through telephone conversations with BLS staff. For the seven cost categories, these annual price increases are 1.0900 for salaries, 1.1147 for rent, 1.1213 for auto expenses, 1.1083 for supplies, 1.1037 for other, 1.0576 for malpractice and 1.0813 for net income. (Note the malpractice value is the same as the previous year at the request of the HCFA staff.)

Tables V-23 through V-25 display the estimated coefficients where this index is a dependent variable. Each price is the Index price proxy in a given category for the current over the prior year. The price proxy comes from the Fee Screen year. The Tables differ only in the definition of the weights used to create the index. In Table V-23, net income excludes pension contributions and equipment expenses act as a proxy for overhead; in the next Table, overhead is imputed at 10.8 percent and in the last Table, overhead is also imputed at 10.8 percent but pension contributions are included in net income.

The results indicate that these share indices are significantly different from the overall mean in only about one-quarter of the states, most of which are in the Southeast. The estimates of the state coefficients are biased toward zero if the Index were properly specified and included input price variation. Input prices do differ significantly across states. Practices located in SMSAs experienced higher rates of price increases relative to rural areas but larger SMSAs do not have higher rates than those smaller SMSAs. The coefficient on the year variables report the change in the index value for that year. In Table V-24, the coefficient of 1.38 on YR77 indicates that the total rate of price increase for 1977 is 1.0976 percent, the sum of the intercept and the coefficient. Note that the absolute value of all coefficients is quite small even when significant.

Also note that creation of a specialty specific index would give surgeons a lower index value as indicated by the significant negative coefficients because of their larger net income shares in the 1976-1978 Survey years. In 1979 through 1981 the price proxy for net income showed a lower rate of price increase than the rate for the non-physician inputs of employee salaries, rent, auto expenses and the miscellaneous category. Introduction of a specialty specific index would allow surgeons a smaller rate of increase in their prevailing charges as long as the net income price proxy increases at a lower rate than the average of price proxies for the other inputs. As noted above, the coefficients are small so that if specialty specific indices were applied to the prevailing charge rates, the change in these rates would also be quite small, between .25 and .75 percent. A general practitioner would receive a 10.38 percent increase in prevailing charge rates for Fee Screen Year 1983 (the sum of the intercept and the YR77 and YR78 coefficients in Table V-24) and a neurosurgeon would receive a 9.74 percent increase. Even if this effect were maintained for five consecutive years, the general practitioner would only receive about $5 more per $100 billed to Medicare than the neurosurgeon. Of course, this effect would be somewhat larger if the physician net income share is maintained at sixty percent. However, note that in FSY 1977 and 1978, surgeons would have received higher rather than lower rates of increases because malpractice premiums increased dramatically and surgeons have a much higher rate of practice costs devoted to these premiums.

Over time, the maintenance of a single Index will probably treat the different specialties equitably even though in any one year some small inequities may appear due to differences in input price variation. Introduction of specialty specific indices would result in increased administrative costs and it is not clear that the benefits of increased Medicare patient access would warrant these costs. Note that this possibility of improved access to certain specialties presents a separate issue from the general problem of patient access if the Index does not adequately compensate physicians for their costs. This could occur if the price proxies used in the Index are not accurate estimates of input prices facing physicians or it physician reimbursement for treating other patients increases at a higher rate.

TABLE V-1

SHARE EQUATION FOR THE COST OF SPACE AND UTILITIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

		SSE	188706.8	F RATIO	10.89
WEIGHT: AOJWT		DFE	4418	PROB>F	0.0001
DEP VAR: RSPACXTP		MSE	42.713167	R-SQUARE	0.0264

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	6.393643	0.294570	21.7050	0.0001
YR77	1	1.293922	0.227916	5.6772	0.0001
YR78	1	1.030221	0.227762	4.5232	0.0001
SPECSURG	1	-0.810121	0.214746	-3.7725	0.0002
SPECINT	1	-0.156343	0.235751	-0.6632	0.5073
WEST	1	0.492818	0.271464	1.8154	0.0695
NOEAST	1	0.779489	0.262374	2.9709	0.0030
SOUTH	1	0.743983	0.247387	3.0074	0.0027
BLSPOP2	1	0.401433	0.275150	1.4590	0.1446
BLSPOP3	1	1.031372	0.326178	3.1620	0.0016
BLSPOP4	1	1.353426	0.261530	5.1750	0.0001
BLSPOP5	1	2.041202	0.336057	6.0740	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE V-2

SHARE EQUATION FOR THE COST OF SUPPLIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

	SSE 83578.25	F RATIO	42.92
WEIGHT: ADJWT	DFE 4418	PROB>F	0.0001
DEP VAR: RSUPLXTP	MSE 18.917667	R-SQUARE	0.0965

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	6.382703	0.196039	32.5584	0.0001
YR77	1	-0.568672	0.151680	-3.7505	0.0002
YR78	1	-0.559687	0.151577	-3.6924	0.0002
SPECSURG	1	-2.651577	0.142915	-18.5535	0.0001
SPECINT	1	-1.294595	0.156894	-8.2514	0.0001
WEST	1	-0.223749	0.180661	-1.2385	0.2156
NOEAST	1	-0.452751	0.174612	-2.5929	0.0095
SOUTH	1	0.129309	0.164638	0.7854	0.4323
BLSPOP2	1	-0.702797	0.183114	-3.8380	0.0001
BLSPOP3	1	-0.461242	0.217074	-2.1248	0.0337
BLSPOP4	1	-0.875120	0.174050	-5.0280	0.0001
BLSPOP5	1	-0.839174	0.223648	-3.7522	0.0002

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE V-3

SHARE EQUATION FOR THE COST OF EMPLOYEE SALARIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

		SSE	430878.4	F RATIO	36.81
WEIGHT: ADJWT		DFE	4418	PROB>F	0.0001
DEP VAR: REMPSXTP		MSE	97.527934	R-SQUARE	0.0840

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	20.757963	0.445115	46.6350	0.0001
YR77	1	0.085242	0.344397	0.2475	0.8045
YR78	1	0.446085	0.344163	1.2961	0.1950
SPECSURG	1	-4.162950	0.324495	-12.8290	0.0001
SPECINT	1	-1.336055	0.356235	-3.7505	0.0002
WEST	1	1.500591	0.410200	3.6582	0.0003
NOEAST	1	-3.328831	0.396465	-8.3963	0.0001
SOUTH	1	0.440119	0.373818	1.1774	0.2391
BLSPOP2	1	0.053823	0.415770	0.1295	0.8970
BLSPOP3	1	-0.685460	0.492876	-1.3907	0.1644
BLSPOP4	1	-1.079170	0.395190	-2.7308	0.0063
BLSPOP5	1	-1.618679	0.507804	-3.1876	0.0014

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE V-4

SHARE EQUATION FOR THE COST OF MALPRACTICE INSURANCE

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

	SSE	67437.26	F RATIO	120.95
WEIGHT: AOJWT	DFE	4418	PROB>F	0.0001
DEP VAR: RMALPXTP	MSE	15.264206	R-SQUARE	0.2314

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	2.956818	0.176094	16.7911	0.0001
YR77	1	-0.632958	0.136249	-4.6456	0.0001
YR78	1	-0.919355	0.136156	-6.7522	0.0001
SPECSURG	1	2.758764	0.128375	21.4899	0.0001
SPECINT	1	-0.932610	0.140932	-6.6175	0.0001
WEST	1	1.336388	0.162281	8.2350	0.0001
NOEAST	1	0.684209	0.156848	4.3623	0.0001
SOUTH	1	-0.549232	0.147888	-3.7138	0.0002
BLSPOP2	1	0.197964	0.164485	1.2035	0.2288
BLSPOP3	1	-0.018730	0.194989	-0.0961	0.9235
BLSPOP4	1	0.932317	0.156343	5.9633	0.0001
BLSPOP5	1	2.302569	0.200895	11.4616	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE V-5

SHARE EQUATION FOR PHYSICIAN NET INCOME (INCLUDING PENSION PAYMENTS)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

```
                               SSE     759748.9     F RATIO          25.69
WEIGHT:  ADJWT                 DFE         4418     PROB>F          0.0001
DEP VAR: RNTINXTP              MSE   171.966711     R-SQUARE        0.0601

                         PARAMETER     STANDARD
VARIABLE          DF      ESTIMATE        ERROR      T RATIO      PROB>|T|

INTERCEPT          1     50.399008     0.591058      85.2691        0.0001
YR77               1     -0.344573     0.457317      -0.7535        0.4512
YR78               1     -0.458896     0.457006      -1.0041        0.3154
SPECSURG           1      5.599833     0.430890      12.9960        0.0001
SPECINT            1      4.195314     0.473036       8.8689        0.0001
WEST               1     -2.892845     0.544695      -5.3109        0.0001
NOEAST             1      1.795651     0.526457       3.4108        0.0007
SOUTH              1     -0.793759     0.496385      -1.5991        0.1099
BLSPOP2            1      0.075945     0.552091       0.1376        0.8906
BLSPOP3            1      0.045195     0.654479       0.0691        0.9449
BLSPOP4            1     -0.554165     0.524763      -1.0560        0.2910
BLSPOP5            1     -2.487535     0.674301      -3.6891        0.0002
```

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

TABLE V-6

SHARE EQUATION FOR THE COST OF SPACE AND UTILITIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4163)

	SSE	155344.4	F RATIO	26.52
WEIGHT: ADJWT	DFE	4140	PROB>F	0.0001
DEP VAR: RSPACXTP	MSE	37.522798	R-SQUARE	0.1235

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	24.972693	1.682118	14.8460	0.0001
SPECSURG	1	-0.346541	0.254395	-1.3622	0.1732
SPECINT	1	-0.00245131	0.254543	-0.0096	0.9923
WEST	1	0.479904	0.273333	1.7557	0.0792
NOEAST	1	-0.249719	0.264931	-0.9426	0.3460
SOUTH	1	0.392016	0.244270	1.6048	0.1086
BLSPOP2	1	0.197275	0.281964	0.6996	0.4842
BLSPOP3	1	1.046109	0.354063	2.9546	0.0031
BLSPOP4	1	0.940138	0.342946	2.7414	0.0061
BLSPOP5	1	2.207303	0.589435	3.7448	0.0002
YR77	1	1.273149	0.221486	5.7482	0.0001
YR78	1	1.140243	0.225491	5.0567	0.0001
INCORP	1	-1.125470	0.197775	-5.6906	0.0001
GROUP	1	-2.452667	0.203131	-12.0743	0.0001
PATVIS	1	-0.00621465	0.001632874	-3.8060	0.0001
MEDICARE	1	-0.011555	0.004087734	-2.8266	0.0047
SEX	1	0.813098	0.606190	1.3413	0.1799
AGE	1	-0.629962	0.061215	-10.2910	0.0001
AGE2	1	0.005745032	0.000578733	9.9269	0.0001
BD1	1	-0.422760	0.203274	-2.0797	0.0376
POPESTCR	1	-2.92093E-07	9.83942E-08	-2.9686	0.0030
PRCAPINC	1	.00003425258	0.0001404163	0.2439	0.8073
MDPOP	1	0.341194	0.082080	4.1568	0.0001

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATON BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
GROUP: PRACTICE HAS MORE THAN ONE PHYSICIAN
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-7

SHARE EQUATION FOR THE COST OF SUPPLIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4163)

	SSE	76195.28	F RATIO	26.07
WEIGHT: ADJWT	DFE	4140	PROB>F	0.0001
DEP VAR: RSUPLXTP	MSE	18.404657	R-SQUARE	0.1217

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	6.826636	1.178074	5.7947	0.0001
SPECSURG	1	-1.866601	0.178166	-10.4767	0.0001
SPECINT	1	-0.634327	0.178269	-3.5582	0.0004
WEST	1	-0.102778	0.191430	-0.5369	0.5914
NOEAST	1	-0.509317	0.185545	-2.7450	0.0061
SOUTH	1	0.140506	0.171075	0.8213	0.4115
BLSPOP2	1	-0.688465	0.197474	-3.4864	0.0005
BLSPOP3	1	-0.450742	0.247969	-1.8177	0.0692
BLSPOP4	1	-0.925131	0.240183	-3.8518	0.0001
BLSPOP5	1	-0.880360	0.412812	-2.1326	0.0330
YR77	1	-0.488102	0.155118	-3.1467	0.0017
YR78	1	-0.459562	0.157923	-2.9100	0.0036
INCORP	1	-0.128503	0.138512	-0.9277	0.3536
GROUP	1	-0.504406	0.142263	-3.5456	0.0004
PATVIS	1	0.008743318	0.001143587	7.6455	0.0001
MEDICARE	1	-0.00538434	0.002862852	-1.8808	0.0601
SEX	1	0.214489	0.424546	0.5052	0.6134
AGE	1	-0.089053	0.042872	-2.0772	0.0378
AGE2	1	0.001004169	0.0004053167	2.4775	0.0133
BD1	1	-0.174270	0.142364	-1.2241	0.2210
POPESTCR	1	-1.60577E-08	6.89106E-08	-0.2330	0.8158
PRCAPINC	1	0.0001223091	.00009834082	1.2437	0.2137
MDPOP	1	-0.074403	0.057485	-1.2943	0.1956

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
GROUP: PRACTICE HAS MORE THAN ONE PHYSICIAN
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-8

SHARE EQUATION FOR THE COST OF EMPLOYEE SALARIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4163)

	SSE	383030.2	F RATIO	27.86
WEIGHT: ADJWT	DFE	4140	PROB>F	0.0001
DEP VAR: REMPSXTP	MSE	92.519370	R-SQUARE	0.1290

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	25.607653	2.641345	9.6949	0.0001
SPECSURG	1	-2.869398	0.399464	-7.1831	0.0001
SPECINT	1	-0.283368	0.399695	-0.7090	0.4784
WEST	1	1.759264	0.429202	4.0989	0.0001
NOEAST	1	-2.707934	0.416008	-6.5093	0.0001
SOUTH	1	0.250822	0.383565	0.6539	0.5132
BLSPOP2	1	0.467001	0.442753	1.0548	0.2916
BLSPOP3	1	-0.290175	0.555967	-0.5219	0.6017
BLSPOP4	1	-0.629753	0.538511	-1.1694	0.2423
BLSPOP5	1	-1.872560	0.925561	-2.0232	0.0431
YR77	1	0.070032	0.347788	0.2014	0.8404
YR78	1	0.608245	0.354078	1.7178	0.0859
INCORP	1	0.593274	0.310557	1.9104	0.0562
GROUP	1	-1.192885	0.318967	-3.7398	0.0002
PATVIS	1	0.030739	0.002564021	11.9888	0.0001
MEDICARE	1	-0.012588	0.006418763	-1.9612	0.0499
SEX	1	2.119034	0.951870	2.2262	0.0261
AGE	1	-0.292752	0.096122	-3.0456	0.0023
AGE2	1	0.002727146	0.0009087554	3.0010	0.0027
BD1	1	0.526106	0.319192	1.6482	0.0994
POPESTCR	1	2.42206E-07	1.54503E-07	1.5676	0.1170
PRCAPINC	1	-0.000400534	0.0002204887	-1.8166	0.0694
MDPOP	1	0.139422	0.128887	1.0817	0.2794

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
GROUP: PRACTICE HAS MORE THAN ONE PHYSICIAN
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-9

SHARE EQUATION FOR THE COST OF MALPRACTICE INSURANCE

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4163)

```
                                SSE     58475.72       F RATIO         66.83
WEIGHT:  ADJWT                  DFE         4140       PROB>F         0.0001
DEP VAR: RMALPXTP               MSE    14.124569       R-SQUARE       0.2621
```

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	2.935768	1.032040	2.8446	0.0045
SPECSURG	1	2.519090	0.156081	16.1397	0.0001
SPECINT	1	-1.105287	0.156171	-7.0774	0.0001
WEST	1	1.245171	0.167700	7.4250	0.0001
NOEAST	1	0.298051	0.162545	1.8337	0.0668
SOUTH	1	-0.493196	0.149868	-3.2909	0.0010
BLSPOP2	1	-0.032226	0.172995	-0.1863	0.8522
BLSPOP3	1	-0.333262	0.217230	-1.5341	0.1251
BLSPOP4	1	0.503681	0.210410	2.3938	0.0167
BLSPOP5	1	2.350186	0.361640	6.4987	0.0001
YR77	1	-0.721440	0.135889	-5.3090	0.0001
YR78	1	-0.977023	0.138347	-7.0621	0.0001
INCORP	1	-0.356350	0.121342	-2.9367	0.0033
GROUP	1	0.305440	0.124628	2.4508	0.0143
PATVIS	1	-0.00852239	0.001001827	-8.5068	0.0001
MEDICARE	1	-0.00571867	0.002507972	-2.2802	0.0226
SEX	1	0.133448	0.371919	0.3588	0.7198
AGE	1	0.013238	0.037557	0.3525	0.7245
AGE2	1	-.0000768762	0.0003550735	-0.2165	0.8286
BD1	1	-0.438838	0.124716	-3.5187	0.0004
POPESTCR	1	-1.98425E-07	6.03684E-08	-3.2869	0.0010
PRCAPINC	1	0.0003059308	.00008615045	3.5511	0.0004
MDPOP	1	0.054179	0.050359	1.0759	0.2821

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
GROUP: PRACTICE HAS MORE THAN ONE PHYSICIAN
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-10

SHARE EQUATION FOR PHYSICIAN NET INCOME (INCLUDING PENSION PAYMENTS)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4163)

	SSE	664481.5	F RATIO	27.17	
WEIGHT: ADJWT	DFE	4140	PROB>F	0.0001	
DEP VAR: RNTINXTP	MSE	160.502768	R-SQUARE	0.1262	

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	24.158494	3.478965	6.9442	0.0001
SPECSURG	1	3.253806	0.526142	6.1843	0.0001
SPECINT	1	2.519662	0.526446	4.7862	0.0001
WEST	1	-3.139270	0.565310	-5.5532	0.0001
NOEAST	1	2.852897	0.547932	5.2067	0.0001
SOUTH	1	-0.332635	0.505220	-0.6584	0.5103
BLSPOP2	1	0.077537	0.583159	0.1330	0.8942
BLSPOP3	1	-0.080414	0.732275	-0.1098	0.9126
BLSPOP4	1	-0.091635	0.709282	-0.1292	0.8972
BLSPOP5	1	-2.483399	1.219074	-2.0371	0.0417
YR77	1	-0.338722	0.458078	-0.7394	0.4597
YR78	1	-0.869667	0.466362	-1.8648	0.0623
INCORP	1	1.273945	0.409040	3.1145	0.0019
GROUP	1	4.022735	0.420117	9.5753	0.0001
PATVIS	1	-0.018705	0.00337712	-5.5388	0.0001
MEDICARE	1	0.034975	0.008454273	4.1369	0.0001
SEX	1	-4.214140	1.253726	-3.3613	0.0008
AGE	1	1.063329	0.126604	8.3988	0.0001
AGE2	1	-0.010137	0.001196939	-8.4689	0.0001
BD1	1	0.893001	0.420413	2.1241	0.0337
POPESTCR	1	2.99824E-07	2.03499E-07	1.4733	0.1407
PRCAPINC	1	-.0000416253	0.0002904098	-0.1433	0.8860
MDPOP	1	-0.446848	0.169759	-2.6322	0.0085

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
GROUP: PRACTICE HAS MORE THAN ONE PHYSICIAN
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-11

SHARE EQUATION FOR THE COST OF SPACE AND UTILITIES
(SOLO PRACTITIONERS ONLY)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=2754)

	SSE	126337.1	F RATIO	12.31
WEIGHT: ADJWT	DFE	2731	PROB>F	0.0001
DEP VAR: RSPACXTP	MSE	46.260378	R-SQUARE	0.0902

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	27.612360	2.266709	12.1817	0.0001
SPECSURG	1	-0.523179	0.340475	-1.5366	0.1245
SPECINT	1	0.006241958	0.331740	0.0188	0.9850
WEST	1	0.325901	0.373266	0.8731	0.3827
NOEAST	1	-0.117611	0.353590	-0.3326	0.7394
SOUTH	1	0.453996	0.333343	1.3619	0.1733
BLSPOP2	1	0.273276	0.384234	0.7112	0.4770
BLSPOP3	1	0.907134	0.474110	1.9133	0.0558
BLSPOP4	1	0.935696	0.462526	2.0230	0.0432
BLSPOP5	1	1.702711	0.772692	2.2036	0.0276
YR77	1	1.407415	0.296145	4.7525	0.0001
YR78	1	1.150312	0.304583	3.7767	0.0002
INCORP	1	-1.287623	0.265243	-4.8545	0.0001
PATVIS	1	-0.00957961	0.002155214	-4.4449	0.0001
SPACSHR	1	0.660384	0.358866	1.8402	0.0658
MEDICARE	1	-0.013791	0.0054518	-2.5296	0.0115
SEX	1	0.249396	0.786052	0.3173	0.7511
AGE	1	-0.725482	0.081179	-8.9368	0.0001
AGE2	1	0.006499964	0.0007540416	8.6202	0.0001
BD1	1	-0.574038	0.271617	-2.1134	0.0347
POPESTCR	1	-1.88114E-07	1.30403E-07	-1.4426	0.1493
PRCAPINC	1	0.0001567404	0.0001867927	0.8391	0.4015
MDPOP	1	0.355417	0.105040	3.3836	0.0007

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED
SPACSHR: PHYSICIAN RESPONDENT SHARES COST OF SPACE AND UTILITIES

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-12

SHARE EQUATION FOR THE COST OF SUPPLIES
(SOLO PRACTITIONERS ONLY)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=2754)

	SSE	61009.88	F RATIO	18.15
WEIGHT: ADJWT	DFE	2732	PROB>F	0.0001
DEP VAR: RSUPLXTP	MSE	22.331582	R-SQUARE	0.1224

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	7.627200	1.574523	4.8441	0.0001
SPECSURG	1	-2.123341	0.236233	-8.9884	0.0001
SPECINT	1	-0.864313	0.229909	-3.7594	0.0002
WEST	1	-0.360154	0.259202	-1.3895	0.1648
NOEAST	1	-0.662115	0.245628	-2.6956	0.0071
SOUTH	1	0.015978	0.231595	0.0690	0.9450
BLSPOP2	1	-0.728782	0.266891	-2.7306	0.0064
BLSPOP3	1	-0.664174	0.329396	-2.0163	0.0439
BLSPOP4	1	-1.027580	0.321352	-3.1977	0.0014
BLSPOP5	1	-1.298437	0.536663	-2.4195	0.0156
YR77	1	-0.669046	0.205759	-3.2516	0.0012
YR78	1	-0.699847	0.211620	-3.3071	0.0010
INCORP	1	-0.157303	0.184278	-0.8536	0.3934
PATVIS	1	0.008268926	0.001495848	5.5279	0.0001
MEDICARE	1	-0.0042216	0.003787845	-1.1145	0.2652
SEX	1	0.941521	0.546139	1.7240	0.0848
AGE	1	-0.090841	0.056398	-1.6107	0.1074
AGE2	1	0.001006476	0.0005239012	1.9211	0.0548
BD1	1	-0.222542	0.188561	-1.1802	0.2380
POPESTCR	1	-2.04956E-08	9.05809E-08	-0.2263	0.8210
PRCAPINC	1	.00009151066	0.0001296637	0.7058	0.4804
MDPOP	1	-0.062569	0.072981	-0.8573	0.3913

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-13

SHARE EQUATION FOR THE COST OF EMPLOYEE SALARIES
(SOLO PRACTITIONERS ONLY)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=2754)

	SSE	285248	F RATIO	20.24
WEIGHT: ADJWT	DFE	2731	PROB>F	0.0001
DEP VAR: REMPSXTP	MSE	104.448192	R-SQUARE	0.1402

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	19.289524	3.409631	5.6574	0.0001
SPECSURG	1	-2.505776	0.511653	-4.8974	0.0001
SPECINT	1	-0.401367	0.499221	-0.8040	0.4215
WEST	1	1.551034	0.561263	2.7635	0.0058
NOEAST	1	-2.907246	0.531398	-5.4709	0.0001
SOUTH	1	0.582005	0.501185	1.1613	0.2456
BLSPOP2	1	0.429731	0.577256	0.7444	0.4567
BLSPOP3	1	-0.836167	0.712383	-1.1738	0.2406
BLSPOP4	1	-1.490637	0.694998	-2.1448	0.0321
BLSPOP5	1	-3.201782	1.160627	-2.7587	0.0058
YR77	1	0.223879	0.445060	0.5030	0.6150
YR78	1	0.391805	0.457703	0.8560	0.3921
INCORP	1	1.039065	0.398632	2.6066	0.0092
PATVIS	1	0.033179	0.003236402	10.2517	0.0001
LABRSHR	1	3.770736	0.676165	5.5766	0.0001
MEDICARE	1	-0.00177375	0.008191868	-0.2165	0.8286
SEX	1	2.691921	1.181126	2.2791	0.0227
AGE	1	-0.120745	0.122043	-0.9894	0.3226
AGE2	1	0.001336316	0.001133465	1.1790	0.2385
BD1	1	0.743542	0.407982	1.8225	0.0685
POPESTCR	1	3.96002E-07	1.95913E-07	2.0213	0.0433
PRCAPINC	1	-0.000358713	0.0002804268	-1.2792	0.2009
MDPOP	1	0.279488	0.157834	1.7708	0.0767

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED
LABRSHR: PHYSICIAN RESPONDENT SHARES COST OF EMPLOYEE LABOR

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-14

SHARE EQUATION FOR THE COST OF MALPRACTICE INSURANCE
(SOLO PRACTITIONERS ONLY)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=2754)

```
                                SSE     41689.42       F RATIO        46.38
WEIGHT:  ADJWT                  DFE         2732       PROB>F        0.0001
DEP VAR: RMALPXTP               MSE    15.259671       R-SQUARE      0.2628

                           PARAMETER    STANDARD
VARIABLE          DF        ESTIMATE       ERROR       T RATIO     PROB>|T|

INTERCEPT          1        1.602619    1.301553        1.2313       0.2183
SPECSURG           1        2.516907    0.195278       12.8889       0.0001
SPECINT            1       -1.082239    0.190051       -5.6945       0.0001
WEST               1        1.235340    0.214265        5.7655       0.0001
NOEAST             1        0.347765    0.203044        1.7128       0.0869
SOUTH              1       -0.387613    0.191444       -2.0247       0.0430
BLSPOP2            1        0.157841    0.220621        0.7154       0.4744
BLSPOP3            1       -0.192061    0.272289       -0.7054       0.4806
BLSPOP4            1        0.612345    0.265640        2.3052       0.0212
BLSPOP5            1        3.161489    0.443623        7.1265       0.0001
YR77               1       -0.434052    0.170087       -2.5519       0.0108
YR78               1       -0.610981    0.174932       -3.4927       0.0005
INCORP             1       -0.307681    0.152330       -2.0198       0.0435
PATVIS             1       -0.010517 0.001236518       -8.5056       0.0001
MEDICARE           1     -0.00481111 0.003131159       -1.5365       0.1245
SEX                1        0.322278    0.451456        0.7139       0.4754
AGE                1        0.069394    0.046621        1.4885       0.1367
AGE2               1 -0.000584915 0.0004330741      -1.3506       0.1769
BO1                1       -0.548829    0.155871       -3.5210       0.0004
POPESTCR           1   -2.74672E-07 7.48772E-08     -3.6683       0.0002
PRCAPINC           1 0.0002414824 0.0001071843       2.2530       0.0243
MDPOP              1        0.025143    0.060328        0.4168       0.6769
```

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
SEX: PHYSICIAN RESPONDENT IS FEMALE
BO1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-15

SHARE EQUATION FOR PHYSICIAN NET INCOME
(INCLUDING PENSION PAYMENTS)
(SOLO PRACTITIONERS ONLY)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=2754)

	SSE	492769.6	F RATIO	11.70
WEIGHT: ADJWT	DFE	2732	PROB>F	0.0001
DEP VAR: RNTINXTP	MSE	180.369537	R-SQUARE	0.0825

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	27.496572	4.474773	6.1448	0.0001
SPECSURG	1	3.287662	0.671369	4.8969	0.0001
SPECINT	1	2.614702	0.653399	4.0017	0.0001
WEST	1	-2.665964	0.736647	-3.6191	0.0003
NOEAST	1	3.163525	0.698071	4.5318	0.0001
SOUTH	1	-0.517589	0.658189	-0.7864	0.4317
BLSPOP2	1	-0.042732	0.758499	-0.0563	0.9551
BLSPOP3	1	0.673964	0.936138	0.7199	0.4716
BLSPOP4	1	0.704550	0.913278	0.7715	0.4405
BLSPOP5	1	-1.234538	1.525187	-0.8094	0.4183
YR77	1	-0.796919	0.584764	-1.3628	0.1731
YR78	1	-0.852154	0.601421	-1.4169	0.1566
INCORP	1	1.051449	0.523715	2.0077	0.0448
PATVIS	1	-0.013221	0.004251178	-3.1100	0.0019
MEDICARE	1	0.024992	0.010765	2.3216	0.0203
SEX	1	-5.013077	1.552118	-3.2298	0.0013
AGE	1	0.934193	0.160283	5.8284	0.0001
AGE2	1	-0.0089683	0.00148892	-6.0234	0.0001
BD1	1	0.921157	0.535888	1.7189	0.0857
POPESTCR	1	1.93282E-07	2.57430E-07	0.7508	0.4528
PRCAPINC	1	-.0000933566	0.0003685024	-0.2533	0.8000
MDPOP	1	-0.559938	0.207410	-2.6997	0.0070

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
AGE: AGE OF PHYSICIAN RESPONDENT
AGE2: AGE SQUARED OF PHYSICIAN RESPONDENT
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MDPOP: PHYSICIAN POPULATION RATIO OF COUNTY

TABLE V-16

SHARE EQUATION FOR THE COST OF SPACE AND UTILITIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

```
                                 SSE         182806     F RATIO          4.88
WEIGHT:  ADJWT                   DFE           4375     PROB>F         0.0001
DEP VAR: RSPACXTP                MSE      41.784228     R-SQUARE       0.0568

                            PARAMETER      STANDARD
VARIABLE          DF         ESTIMATE         ERROR     T RATIO     PROB>|T|

INTERCEPT          1         6.867474      0.653075     10.5156       0.0001
YR77               1         1.311323      0.227098      5.7743       0.0001
YR78               1         1.096025      0.227675      4.8140       0.0001
ALA                1        -1.435899      0.901669     -1.5925       0.1113
ARIZ               1        -0.436335      1.026681     -0.4250       0.6709
ARK                1        -0.634334      1.048630     -0.6049       0.5453
CAL                1        -0.395581      0.702753     -0.5629       0.5735
COLO               1        -0.983360      0.945457     -1.0401       0.2984
CNMASSRI           1         0.114694      0.758563      0.1512       0.8798
DELDCMD            1         1.067802      0.831269      1.2845       0.1990
FLA                1         0.572403      0.752949      0.7602       0.4472
GA                 1         0.504852      0.869469      0.5806       0.5615
ILL                1        -0.586158      0.773082     -0.7582       0.4484
IND                1        -1.063341      0.909416     -1.1693       0.2424
IOWA               1        -1.455573      1.062191     -1.3703       0.1706
KAN                1         0.155300      1.073534      0.1447       0.8850
KENT               1         1.638789      0.916039      1.7890       0.0737
LA                 1        -1.780479      0.915811     -1.9442       0.0519
MANHVT             1         1.388109      0.978357      1.4188       0.1560
MICH               1         0.219505      0.794037      0.2764       0.7822
MINN               1        -2.243414      0.983456     -2.2812       0.0226
MISS               1         0.170911      1.143253      0.1495       0.8812
MO                 1         0.515162      0.874986      0.5888       0.5560
NEB                1         0.828274      1.194255      0.6935       0.4880
NEW_JERS           1        -1.070011      0.810288     -1.3205       0.1867
NEW_MEX            1         3.241570      1.399039      2.3170       0.0205
NEW_YORK           1         1.357442      0.717915      1.8908       0.0587
NO_CAR             1        -0.545204      0.856104     -0.6368       0.5243
OHIO               1        -0.834146      0.757666     -1.1009       0.2710
OKLA               1         2.063817      1.146959      1.7994       0.0720
OREGON             1         0.857981      0.958305      0.8953       0.3707
PENN               1        -1.474453      0.753265     -1.9574       0.0504
SO_CAR             1         0.234460      0.951455      0.2464       0.8054
TENN               1         0.534972      0.926907      0.5772       0.5639
TEXAS              1        -0.447871      0.757464     -0.5913       0.5544
UTAH               1        -0.058246      1.266155     -0.0460       0.9633
VA                 1        -0.659171      0.878591     -0.7503       0.4531
WASH               1         0.088881      0.906525      0.0980       0.9219
WEST_VA            1         2.760132      1.212662      2.2761       0.0229
WISC               1        -1.684548      0.922211     -1.8266       0.0678
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TABLE V-16
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
BLSPOP2	1	0.813858	0.281948	2.8866	0.0039
BLSPOP3	1	1.121230	0.350036	3.2032	0.0014
BLSPOP4	1	1.722446	0.285906	6.0245	0.0001
BLSFOP5	1	1.905468	0.399939	4.7644	0.0001
ALLERGY	1	0.253025	0.860989	0.2939	0.7689
CARD	1	-0.747851	0.529641	-1.4120	0.1580
DERM	1	0.104803	0.513849	0.2040	0.8384
GASTRO	1	-0.792650	0.824498	-0.9614	0.3364
GENSURG	1	-1.284865	0.284121	-4.5222	0.0001
INTMED	1	-0.348925	0.261920	-1.3322	0.1829
NEURSURG	1	-2.797129	0.766224	-3.6505	0.0003
OPHTHAL	1	0.219365	0.358826	0.6113	0.5410
ORTHSURG	1	-1.560872	0.394218	-3.9594	0.0001
OTOLARYN	1	0.158986	0.483162	0.3291	0.7421
UROLOGY	1	-1.248673	0.458908	-2.7210	0.0065

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	NEURSURG	NEUROSURGERY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	UROLOGY	UROLOGY
INTMED	INTERNAL MEDICINE		

TABLE V-17

SHARE EQUATION FOR THE COST OF SUPPLIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

```
                               SSE      79367.44        F RATIO           13.42
WEIGHT:  ADJWT                 DFE          4375        PROB>F           0.0001
DEP VAR: RSUPLXTP              MSE     18.141129        R-SQUARE         0.1421

                          PARAMETER     STANDARD
VARIABLE          DF       ESTIMATE        ERROR        T RATIO       PROB>|T|

INTERCEPT          1       7.297083     0.430317        16.9574         0.0001
YR77               1      -0.599635     0.149637        -4.0073         0.0001
YR78               1      -0.579465     0.150017        -3.8627         0.0001
ALA                1      -0.545983     0.594118        -0.9190         0.3582
ARIZ               1       1.070363     0.676490         1.5822         0.1137
ARK                1      -0.788067     0.690953        -1.1406         0.2541
CAL                1      -1.853418     0.463051        -4.0026         0.0001
COLO               1      -1.122762     0.622971        -1.8023         0.0716
CNMASSRI           1      -2.724558     0.499824        -5.4510         0.0001
DELDCMD            1      -1.377436     0.547731        -2.5148         0.0119
FLA                1      -1.070659     0.496125        -2.1580         0.0310
GA                 1      -0.951695     0.572902        -1.6612         0.0967
ILL                1      -1.658347     0.509391        -3.2555         0.0011
IND                1      -0.784247     0.599223        -1.3088         0.1907
IOWA               1      -1.260288     0.699888        -1.8007         0.0718
KAN                1      -1.701029     0.707362        -2.4048         0.0162
KENT               1       0.040947     0.603587         0.0678         0.9459
LA                 1      -0.987818     0.603437        -1.6370         0.1017
MANHVT             1      -2.073444     0.644649        -3.2164         0.0013
MICH               1      -1.393349     0.523199        -2.6631         0.0078
MINN               1      -0.674377     0.648009        -1.0407         0.2981
MISS               1      -0.272972     0.753300        -0.3624         0.7171
MO                 1      -1.229089     0.576537        -2.1318         0.0331
NEB                1       4.101557     0.786906         5.2123         0.0001
NEW_JERS           1      -0.818335     0.533907        -1.5327         0.1254
NEW_MEX            1      -1.385803     0.921841        -1.5033         0.1328
NEW_YORK           1      -1.589684     0.473041        -3.3606         0.0008
NO_CAR             1      -0.889892     0.564095        -1.5776         0.1147
OHIO               1      -1.017312     0.499233        -2.0377         0.0416
OKLA               1      -0.097026     0.755743        -0.1284         0.8979
OREGON             1      -1.627862     0.631436        -2.5780         0.0100
PENN               1      -0.658469     0.496334        -1.3267         0.1847
SO_CAR             1      -1.966492     0.626923        -3.1367         0.0017
TENN               1      -0.844993     0.610748        -1.3835         0.1666
TEXAS              1      -0.297445     0.499100        -0.5960         0.5512
UTAH               1      -0.167685     0.834282        -0.2010         0.8407
VA                 1      -1.015984     0.578912        -1.7550         0.0793
WASH               1      -1.570967     0.597318        -2.6300         0.0086
WEST_VA            1      -2.498494     0.799035        -3.1269         0.0018
WISC               1      -1.167216     0.607654        -1.9209         0.0548
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TABLE V-17
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
BLSPOP2	1	-0.620616	0.185778	-3.3406	0.0008
BLSPOP3	1	-0.318008	0.230642	-1.3788	0.1680
BLSPOP4	1	-0.735149	0.188386	-3.9024	0.0001
BLSPOP5	1	-0.405214	0.263523	-1.5377	0.1242
ALLERGY	1	1.220021	0.567314	2.1505	0.0316
CARD	1	-2.174231	0.348986	-6.2301	0.0001
DERM	1	-1.347796	0.338580	-3.9807	0.0001
GASTRO	1	-1.632335	0.543270	-3.0046	0.0027
GENSURG	1	-2.954356	0.187210	-15.7809	0.0001
INTMED	1	-1.183865	0.172582	-6.8597	0.0001
NEURSURG	1	-4.398327	0.504873	-8.7118	0.0001
OPHTHAL	1	-2.243591	0.236434	-9.4893	0.0001
ORTHSURG	1	-1.776287	0.259754	-6.8383	0.0001
OTOLARYN	1	-2.586579	0.318360	-8.1247	0.0001
UROLOGY	1	-2.581450	0.302379	-8.5371	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA
ARIZ	ARIZONA
ARK	ARKANSAS
CAL	CALIFORNIA
COLO	COLORADO
CNMASSRI	CONN.,MASS.,RHODE IS.
DELDCMD	DEL.,WASH D.C.,MARYLAND
FLA	FLORIDA
GA	GEORGIA
ILL	ILLINOIS
IND	INDIANA
IOWA	IOWA
KAN	KANSAS
KENT	KENTUCKY
LA	LOUISIANA
MANHVT	MAINE,NEW HAMP,.VERMONT
MICH	MICHIGAN
MINN	MINNESOTA

MISS	MISSISSIPPI
MO	MISSOURI
NEB	NEBRASKA
NEW_JERS	NEW JERSEY
NEW_MEX	NEW MEXICO
NEW_YORK	NEW YORK
NO_CAR	NORTH CAROLINA
OHIO	OHIO
OKLA	OKLAHOMA
OREGON	OREGON
PENN	PENNSYLVANIA
SO_CAR	SOUTH CAROLINA
TENN	TENNESSEE
TEXAS	TEXAS
UTAH	UTAH
VA	VIRGINIA
WASH	WASHINGTON
WEST_VA	WEST VIRGINIA
WISC	WISCONSIN

ALLERGY	ALLERGY
CARD	CARDIOLOGY
DERM	DERMATOLCGY
GASTRO	GASTROENTEROLOGY
GENSURG	GENERAL SURGERY
INTMED	INTERNAL MEDICINE

NEURSURG	NEUROSURGERY
OPHTHAL	OPHTHALMOLOGY
ORTHSURG	ORTHOPEDIC SURGERY
OTOLARYN	OTOLARYNGOLCGY
UROLOGY	UROLOGY

TABLE V-18

SHARE EQUATION FOR THE COST OF EMPLOYEE SALARIES

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

```
                                   SSE     417055.6       F RATIO          10.36
WEIGHT:  ADJWT                     DFE         4375       PROB>F          0.0001
DEP VAR: REMPSXTP                  MSE    95.326992       R-SQUARE        0.1133

                              PARAMETER     STANDARD
VARIABLE            DF         ESTIMATE        ERROR        T RATIO     PROB>|T|

INTERCEPT            1        20.607959     0.986426        20.8915       0.0001
YR77                 1         0.071345     0.343016         0.2080       0.8352
YR78                 1         0.512686     0.343888         1.4909       0.1361
ALA                  1         1.656832     1.361911         1.2165       0.2238
ARIZ                 1         0.753684     1.550734         0.4860       0.6270
ARK                  1        -1.010339     1.583886        -0.6379       0.5236
CAL                  1         2.060001     1.061462         1.9407       0.0524
COLO                 1         2.010224     1.428050         1.4077       0.1593
CNMASSRI             1        -2.609653     1.145759        -2.2777       0.0228
DELDCMD              1        -0.635011     1.255577        -0.5058       0.6131
FLA                  1         0.729960     1.137280         0.6418       0.5210
GA                   1         1.611100     1.313276         1.2268       0.2200
ILL                  1         1.173135     1.167689         1.0047       0.3151
IND                  1        -0.565814     1.373613        -0.4119       0.6804
IOWA                 1        -2.104150     1.604369        -1.3115       0.1898
KAN                  1        -0.233134     1.621502        -0.1438       0.8857
KENT                 1         1.081382     1.383616         0.7816       0.4345
LA                   1         1.735101     1.383272         1.2543       0.2098
MANHVT               1        -1.825043     1.477743        -1.2350       0.2169
MICH                 1         1.042045     1.199341         0.8688       0.3850
MINN                 1         0.040973     1.485445         0.0276       0.9780
MISS                 1         1.337892     1.726808         0.7748       0.4385
MO                   1         0.151565     1.321608         0.1147       0.9087
NEB                  1         0.266630     1.803843         0.1478       0.8825
NEW_JERS             1        -3.060619     1.223886        -2.5007       0.0124
NEW_MEX              1         2.987972     2.113157         1.4140       0.1574
NEW_YORK             1        -2.584375     1.084363        -2.3833       0.0172
NO_CAR               1         0.888258     1.293089         0.6869       0.4922
OHIO                 1         0.758453     1.144404         0.6627       0.5075
OKLA                 1         5.653740     1.732407         3.2635       0.0011
OREGON               1         2.581624     1.447456         1.7836       0.0746
PENN                 1        -3.662864     1.137758        -3.2194       0.0013
SO_CAR               1        -0.758051     1.437109        -0.5275       0.5979
TENN                 1        -0.527089     1.400032        -0.3765       0.7066
TEXAS                1         1.214231     1.144099         1.0613       0.2886
UTAH                 1         3.346417     1.912444         1.7498       0.0802
VA                   1         1.052378     1.327054         0.7930       0.4278
WASH                 1         0.636500     1.369246         0.4649       0.6421
WEST_VA              1        -2.168638     1.831645        -1.1840       0.2365
WISC                 1        -1.665199     1.392939        -1.1955       0.2320
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TABLE V-18
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
BLSPOP2	1	0.070079	0.425863	0.1646	0.8693
BLSPOP3	1	-1.131520	0.528706	-2.1402	0.0324
BLSPOP4	1	-1.249792	0.431842	-2.8941	0.0038
BLSPOP5	1	-2.276701	0.604081	-3.7689	0.0002
ALLERGY	1	0.754706	1.300468	0.5803	0.5617
CARD	1	-2.629159	0.799988	-3.2865	0.0010
DERM	1	-1.944616	0.776136	-2.5055	0.0123
GASTRO	1	-3.483343	1.245350	-2.7971	0.0052
GENSURG	1	-6.056383	0.429147	-14.1126	0.0001
INTMED	1	-1.129733	0.395613	-2.8557	0.0043
NEURSURG	1	-6.849148	1.157331	-5.9181	0.0001
OPHTHAL	1	-1.839970	0.541983	-3.3949	0.0007
ORTHSURG	1	-2.542148	0.595441	-4.2694	0.0001
OTOLARYN	1	-1.875065	0.729784	-2.5693	0.0102
UROLOGY	1	-6.121673	0.693151	-8.8317	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	NEURSURG	NEUROSURGERY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	UROLOGY	UROLOGY
INTMED	INTERNAL MEDICINE		

TABLE V-19

SHARE EQUATION FOR THE COST OF MALPRACTICE INSURANCE

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

		SSE	60529.63	F RATIO	36.43
WEIGHT:	ADJWT	DFE	4375	PROB>F	0.0001
DEP VAR:	RMALPXTP	MSE	13.835343	R-SQUARE	0.3102

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	3.968716	0.375795	10.5608	0.0001
YR77	1	-0.654316	0.130678	-5.0071	0.0001
YR78	1	-0.952871	0.131010	-7.2733	0.0001
ALA	1	-1.430707	0.518843	-2.7575	0.0058
ARIZ	1	0.074013	0.590778	0.1253	0.9003
ARK	1	-2.344214	0.603408	-3.8850	0.0001
CAL	1	1.316716	0.404382	3.2561	0.0011
COLO	1	-0.734491	0.544040	-1.3501	0.1771
CNMASSRI	1	-1.522248	0.436496	-3.4874	0.0005
DELDCMD	1	-0.312352	0.478333	-0.6530	0.5138
FLA	1	-0.616379	0.433266	-1.4226	0.1549
GA	1	-2.349884	0.500314	-4.6968	0.0001
ILL	1	-1.158134	0.444851	-2.6034	0.0093
IND	1	-1.306735	0.523301	-2.4971	0.0126
IOWA	1	-1.175128	0.611211	-1.9226	0.0546
KAN	1	-1.038408	0.617738	-1.6810	0.0928
KENT	1	-1.297080	0.527112	-2.4607	0.0139
LA	1	-1.455650	0.526981	-2.7622	0.0058
MANHVT	1	-1.100994	0.562971	-1.9557	0.0506
MICH	1	-0.395483	0.456909	-0.8656	0.3868
MINN	1	-0.602753	0.565905	-1.0651	0.2869
MISS	1	-2.449356	0.657856	-3.7232	0.0002
MO	1	-0.952259	0.503489	-1.8913	0.0586
NEB	1	-0.350260	0.687204	-0.5097	0.6103
NEW_JERS	1	1.492017	0.466260	3.2000	0.0014
NEW_MEX	1	-0.970119	0.805042	-1.2051	0.2282
NEW_YORK	1	1.018411	0.413106	2.4653	0.0137
NO_CAR	1	-2.870026	0.492624	-5.8260	0.0001
OHIO	1	0.433160	0.435980	0.9935	0.3205
OKLA	1	-1.840344	0.659989	-2.7884	0.0053
OREGON	1	0.805799	0.551433	1.4613	0.1440
PENN	1	-0.581132	0.433448	-1.3407	0.1801
SO_CAR	1	-2.740535	0.547491	-5.0056	0.0001
TENN	1	-1.902285	0.533366	-3.5666	0.0004
TEXAS	1	-0.775575	0.435864	-1.7794	0.0752
UTAH	1	-0.592480	0.728577	-0.8132	0.4161
VA	1	-0.921268	0.505563	-1.8223	0.0685
WASH	1	0.662559	0.521637	1.2702	0.2041
WEST_VA	1	-0.390491	0.697796	-0.5596	0.5758
WISC	1	-1.415333	0.530663	-2.6671	0.0077

TABLE V-19
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
BLSPOP2	1	0.054652	0.162240	0.3369	0.7362
BLSPOP3	1	-0.188237	0.201419	-0.9346	0.3501
BLSPOP4	1	0.481965	0.164517	2.9296	0.0034
BLSPOP5	1	1.531143	0.230135	6.6532	0.0001
ALLERGY	1	-1.306936	0.495435	-2.6380	0.0084
CARD	1	-0.625893	0.304769	-2.0537	0.0401
DERM	1	-0.997945	0.295682	-3.3751	0.0007
GASTRO	1	-0.842536	0.474437	-1.7759	0.0758
GENSURG	1	3.622689	0.163491	22.1584	0.0001
INTMED	1	-1.078018	0.150715	-7.1527	0.0001
NEURSURG	1	4.507845	0.440905	10.2241	0.0001
OPHTHAL	1	0.476103	0.206478	2.3058	0.0212
ORTHSURG	1	3.497598	0.226843	15.4186	0.0001
OTOLARYN	1	2.808165	0.278023	10.1005	0.0001
UROLOGY	1	2.123962	0.264067	8.0433	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	NEURSURG	NEUROSURGERY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	UROLOGY	UROLOGY
INTMED	INTERNAL MEDICINE		

TABLE V-20

SHARE EQUATION FOR PHYSICIAN NET INCOME (INCLUDING PENSION PAYMENTS)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4430)

WEIGHT: ADJWT	DFE 4375	PROB>F	0.0001
	SSE 728067.2	F RATIO	8.93
DEP VAR: RNTINXTP	MSE 166.415369	R-SQUARE	0.0993

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	48.241116	1.303327	37.0138	0.0001
YR77	1	-0.301553	0.453214	-0.6654	0.5059
YR78	1	-0.532525	0.454366	-1.1720	0.2413
ALA	1	2.003498	1.799440	1.1134	0.2656
ARIZ	1	-1.606763	2.048925	-0.7842	0.4330
ARK	1	4.208571	2.092728	2.0110	0.0444
CAL	1	-0.932160	1.402469	-0.6647	0.5063
COLO	1	0.713159	1.886828	0.3780	0.7055
CNMASSRI	1	6.396976	1.513847	4.2256	0.0001
DELDCMD	1	0.613755	1.658945	0.3700	0.7114
FLA	1	0.249500	1.502644	0.1660	0.8681
GA	1	0.942033	1.735180	0.5429	0.5872
ILL	1	2.383243	1.542823	1.5447	0.1225
IND	1	3.661618	1.814902	2.0175	0.0437
IOWA	1	5.537486	2.119791	2.6123	0.0090
KAN	1	2.726332	2.142428	1.2725	0.2032
KENT	1	-1.328624	1.828118	-0.7268	0.4674
LA	1	2.711657	1.827664	1.4837	0.1380
MANHVT	1	3.033775	1.952485	1.5538	0.1203
MICH	1	0.478566	1.584643	0.3020	0.7627
MINN	1	3.860315	1.962662	1.9669	0.0493
MISS	1	1.266310	2.281565	0.5550	0.5789
MO	1	1.236886	1.746190	0.7083	0.4788
NEB	1	-4.710916	2.383348	-1.9766	0.0482
NEW_JERS	1	2.862365	1.617074	1.7701	0.0768
NEW_MEX	1	-4.318417	2.792032	-1.5467	0.1220
NEW_YORK	1	1.006993	1.432727	0.7029	0.4822
NO_CAR	1	3.185625	1.708509	1.8646	0.0623
OHIO	1	0.130550	1.512057	0.0863	0.9312
OKLA	1	-5.948404	2.288962	-2.5987	0.0094
OREGON	1	-2.315926	1.912468	-1.2110	0.2260
PENN	1	5.873746	1.503275	3.9073	0.0001
SO_CAR	1	5.390386	1.898797	2.8388	0.0045
TENN	1	2.784439	1.849808	1.5053	0.1323
TEXAS	1	0.167214	1.511654	0.1106	0.9119
UTAH	1	-2.623927	2.526838	-1.0384	0.2991
VA	1	1.378252	1.753386	0.7861	0.4319
WASH	1	0.211095	1.809131	0.1167	0.9071
WEST_VA	1	2.550440	2.420082	1.0539	0.2920
WISC	1	6.190129	1.840436	3.3634	0.0008

TABLE V-20
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
BLSPOP2	1	-0.336982	0.562677	-0.5989	0.5493
BLSPOP3	1	0.413725	0.698559	0.5923	0.5537
BLSPOP4	1	-0.418316	0.570576	-0.7331	0.4635
BLSPOP5	1	-1.380912	0.798149	-1.7301	0.0837
ALLERGY	1	-0.059100	1.718258	-0.0344	0.9726
CARD	1	6.709659	1.056993	6.3479	0.0001
DERM	1	5.008547	1.025478	4.8841	0.0001
GASTRO	1	7.628410	1.645432	4.6361	0.0001
GENSURG	1	7.218150	0.567015	12.7301	0.0001
INTMED	1	4.125821	0.522708	7.8932	0.0001
NEURSURG	1	10.459991	1.529137	6.8405	0.0001
OPHTHAL	1	4.323575	0.716102	6.0377	0.0001
ORTHSURG	1	3.371934	0.786733	4.2860	0.0001
OTOLARYN	1	2.309992	0.964235	2.3957	0.0166
UROLOGY	1	8.346025	0.915833	9.1130	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	NEURSURG	NEUROSURGERY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	UROLOGY	UROLOGY
INTMED	INTERNAL MEDICINE		

TABLE V-21

THE RELATIONSHIP OF PHYSICIAN NET INCOME TO REGIONAL, SPECIALTY, AND PRACTICE CHARACTERISTICS
(LOG OF NET INCOME EXCLUDING PENSION PAYMENTS)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4142)

```
                                SSE       1281.132       F RATIO         91.43
WEIGHT:  ADJWT                  DFE           4117       PROB>F     .   0.0001
DEP VAR: LNNET                  MSE       0.311181       R-SQUARE       0.3477
                          PARAMETER       STANDARD
VARIABLE          DF       ESTIMATE          ERROR       T RATIO     PROB>|T|

INTERCEPT          1       8.419716       0.249898       33.6927       0.0001
SPECSURG           1       0.344851       0.023287       14.8089       0.0001
SPECINT            1       0.189257       0.023343        8.1077       0.0001
WEST               1     -0.0080944       0.025061       -0.3230       0.7467
NOEAST             1      -0.038455       0.024208       -1.5885       0.1122
SOUTH              1       0.042560       0.022291        1.9093       0.0563
BLSPOP2            1       0.014439       0.025746        0.5608       0.5749
BLSPOP3            1      -0.065672       0.032340       -2.0307       0.0424
BLSPOP4            1      -0.037777       0.031321       -1.2061       0.2278
BLSPOP5            1      -0.163433       0.053808       -3.0374       0.0024
YR77               1       0.048720       0.020565        2.3690       0.0179
YR78               1       0.144801       0.022086        6.5563       0.0001
INCORP             1       0.198656       0.018042       11.0108       0.0001
GROUP              1       0.202635       0.018567       10.9136       0.0001
PATVIS             1    0.002439516   0.0001499065       16.2736       0.0001
MEDICARE           1   0.0007834268   0.0003742046        2.0936       0.0364
SEX                1      -0.436354       0.055243       -7.8988       0.0001
BD1                1       0.122799       0.018606        6.6001       0.0001
LANNHRS            1       0.227137       0.028585        7.9460       0.0001
EXPER              1       0.017691    0.002438202        7.2559       0.0001
EXPER2             1   -0.000423965   .00004168699      -10.1702       0.0001
AGEMD              1      -0.013165    0.002668558       -4.9335       0.0001
POPESTCR           1    4.53144E-08    8.98101E-09        5.0456       0.0001
PRCAPINC           1   .00002731873   .00001281579        2.1316       0.0331
MOPOP              1    -0.00786288     0.00749728       -1.0488       0.2943
```

CATEGORICAL VARIABLES

SPECSURG: SURGERY AND ITS SPECIALTIES
SPECINT: INTERNAL MEDICINE AND ITS SPECIALITIES

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

INCORP: PRACTICE INCORPORATED
GROUP: PRACTICE HAS MORE THAN ONE PHYSICIAN
SEX: PHYSICIAN RESPONDENT IS FEMALE
BD1: PHYSICIAN RESPONDENT IS BOARD CERTIFIED

NON-CATEGORICAL VARIABLES

PATVIS: NUMBER OF PATIENT OFFICE VISITS PER WEEK
MEDICARE: PERCENT OF PATIENTS WITH MEDICARE PART-B
EXPER: YEARS OF EXPERIENCE
EXPER2: YEARS OF EXPERIENCE SQUARED
POPESTCR: POPULATION ESTIMATE FOR COUNTY
PRCAPINC: PER CAPITA INCOME FOR COUNTY
MOPOP: PHYSICIAN POPULATION RATIO OF COUNTY
LANNHRS: LOG OF ANNUAL HOURS WORKED
AGEMD: AGE AT RECEIPT OF MD

TABLE V-22

THE RELATIONSHIP OF PHYSICIAN NET INCOME TO STATE, POPULATION AND SPECIALTY VARIABLES (EXCLUDING PENSION PAYMENTS)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=7278)

		SSE	6.99766E+12	F RATIO	23.67
WEIGHT:	ADJWT	DFE	7220	PROB>F	0.0001
DEP VAR:	MNTINCTB	MSE	969205656	R-SQUARE	0.1575

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	44559.66	2872.628	15.5118	0.0001
YR77	1	3619.091	941.843763	3.8426	0.0001
YR78	1	6830.101	937.228008	7.2876	0.0001
ALA	1	20632.37	3907.505	5.2802	0.0001
ARIZ	1	-2648.88	4335.014	-0.6110	0.5412
ARK	1	8182.919	4726.322	1.7314	0.0834
CAL	1	3245.277	3036.304	1.0688	0.2852
COLO	1	-9587.54	4079.399	-2.3502	0.0188
CNMASSRI	1	-5596.93	3253.139	-1.7205	0.0854
DELOCMD	1	-5724.66	3449.602	-1.6595	0.0971
FLA	1	2693.401	3236.628	0.8322	0.4053
GA	1	7266.952	3647.236	1.9925	0.0464
ILL	1	3637.048	3334.892	1.0906	0.2755
IND	1	8924.284	4043.318	2.2072	0.0273
IOWA	1	7455.746	4689.734	1.5898	0.1119
KAN	1	809.260126	4735.48	0.1709	0.8643
KENT	1	4796.898	4008.564	1.1967	0.2315
LA	1	12305.24	3890.582	3.1628	0.0016
MANHVT	1	-15596.2	4234.683	-3.6830	0.0002
MICH	1	-1556.28	3370.319	-0.4618	0.6443
MINN	1	6290.053	4357.349	1.4436	0.1489
MISS	1	10786.15	4765.02	2.2636	0.0236
MO	1	-1485.88	3725.84	-0.3988	0.6900
NEB	1	-7906.08	5456.029	-1.4491	0.1474
NEW_JERS	1	-1978.01	3424.673	-0.5776	0.5636
NEW_MEX	1	-11244.7	5932.222	-1.8955	0.0581
NEW_YORK	1	-9731.55	3080.752	-3.1588	0.0016
NO_CAR	1	2155.05	3657.175	0.5893	0.5557
OHIO	1	-543.727487	3270.59	-0.1662	0.8680
OKLA	1	-3137.17	4817.507	-0.6512	0.5149
OREGON	1	-3909.4	4214.392	-0.9276	0.3536
PENN	1	-3962.49	3238.589	-1.2235	0.2212
SO_CAR	1	4104.157	4183.736	0.9810	0.3266
TENN	1	2805.008	4023.019	0.6972	0.4857
TEXAS	1	5527.232	3265.719	1.6925	0.0906
UTAH	1	-4417.64	5208.383	-0.8482	0.3964
VA	1	-41.331408	3685.177	-0.0112	0.9911
WASH	1	-3919.56	3897.016	-1.0058	0.3146
WEST_VA	1	3711.904	5132.964	0.7232	0.4696
WISC	1	15034.69	3995.76	3.7627	0.0002
BLSPOP2	1	-103.024046	1218.141	-0.0846	0.9326
BLSPOP3	1	1213.034	1477.184	0.8212	0.4116
BLSPOP4	1	-1103.94	1223.61	-0.9022	0.3670
BLSPOP5	1	-990.497021	1666.889	-0.5942	0.5524

TABLE V-22
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
ALLERGY	1	15592.44	4143.043	3.7635	0.0002
CARD	1	20462.37	2541.967	8.0498	0.0001
DERM	1	10949.27	2469.456	4.4339	0.0001
GASTRO	1	21140.12	3965.322	5.3312	0.0001
GENSURG	1	20580.94	1364.106	15.0875	0.0001
INTMED	1	9356.674	1250.498	7.4824	0.0001
NEURSURG	1	43484.02	3684.137	11.8030	0.0001
OBGYN	1	23109.93	1424.503	16.2232	0.0001
OPHTHAL	1	19831.09	1723.138	11.5087	0.0001
ORTHSURG	1	37056.16	1892.65	19.5790	0.0001
OTOLARYN	1	18174.48	2322.138	7.8266	0.0001
PEDS	1	2765.294	1535.501	1.8009	0.0718
PSYCH	1	-538.417745	1438.064	-0.3744	0.7081
UROLOGY	1	21747.03	2206.264	9.8569	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA
ARIZ	ARIZONA
ARK	ARKANSAS
CAL	CALIFORNIA
COLO	COLORADO
CNMASSRI	CONN.,MASS.,RHODE IS.
DELDCMD	DEL.,WASH D.C.,MARYLAND
FLA	FLORIDA
GA	GEORGIA
ILL	ILLINOIS
IND	INDIANA
IOWA	IOWA
KAN	KANSAS
KENT	KENTUCKY
LA	LOUISIANA
MANHVT	MAINE,NEW HAMP,.VERMONT
MICH	MICHIGAN
MINN	MINNESOTA
MISS	MISSISSIPPI
MO	MISSOURI
NEB	NEBRASKA
NEW_JERS	NEW JERSEY
NEW_MEX	NEW MEXICO
NEW_YORK	NEW YORK
NO_CAR	NORTH CAROLINA
OHIO	OHIO
OKLA	OKLAHOMA
OREGON	OREGON
PENN	PENNSYLVANIA
SO_CAR	SOUTH CAROLINA
TENN	TENNESSEE
TEXAS	TEXAS
UTAH	UTAH
VA	VIRGINIA
WASH	WASHINGTON
WEST_VA	WEST VIRGINIA
WISC	WISCONSIN

ALLERGY	ALLERGY
CARD	CARDIOLOGY
DERM	DERMATOLOGY
GASTRO	GASTROENTEROLOGY
GENSURG	GENERAL SURGERY
INTMED	INTERNAL MEDICINE
NEURSURG	NEUROSURGERY
OBGYN	OBSTETRICS/GYNECOLOGY
OPHTHAL	OPHTHALMOLOGY
ORTHSURG	ORTHOPEDIC SURGERY
OTOLARYN	OTOLARYNGOLOGY
PEDS	PEDIATRICS
PSYCH	PSYCHIATRY
UROLOGY	UROLOGY

TABLE V-23

THE RELATIONSHIP OF PHYSICIAN-SPECIFIC INDICES TO STATE, POPULATION AND SPECIALTY VARIABLES (NET INCOME EXCLUDES PENSION; EQUIPMENT EXPENSE PROXIES OVERHEAD)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=7278)

	SSE	2764.271	F RATIO	108.39	
WEIGHT: ADJWT	DFE	7220	PROB>F	0.0001	
DEP VAR: INDEXTB	MSE	0.382863	R-SQUARE	0.4611	

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	108.073203	0.057094	1892.8878	0.0001
YR77	1	1.307574	0.018719	69.8512	0.0001
YR78	1	0.793037	0.018628	42.5730	0.0001
BLSPOP2	1	0.030819	0.024211	1.2729	0.2031
BLSPOP3	1	0.050811	0.029359	1.7307	0.0836
BLSPOP4	1	0.037844	0.024320	1.5561	0.1197
BLSPOP5	1	0.047266	0.033130	1.4267	0.1537
ALA	1	0.029657	0.077663	0.3819	0.7026
ARIZ	1	0.068356	0.086160	0.7934	0.4276
ARK	1	0.162909	0.093937	1.7342	0.0829
CAL	1	-0.161177	0.060347	-2.6708	0.0076
COLO	1	0.147828	0.081079	1.8233	0.0683
CNMASSRI	1	0.149592	0.064657	2.3136	0.0207
DELDCMD	1	0.065307	0.068562	0.9525	0.3409
FLA	1	0.155203	0.064329	2.4126	0.0159
GA	1	0.207989	0.072490	2.8692	0.0041
ILL	1	-0.00723272	0.066282	-0.1091	0.9131
IND	1	-0.011097	0.080362	-0.1381	0.8902
IOWA	1	-0.095899	0.093210	-1.0289	0.3036
KAN	1	0.152972	0.094119	1.6253	0.1041
KENT	1	0.194895	0.079671	2.4462	0.0145
LA	1	-0.00724885	0.077326	-0.0937	0.9253
MANHVT	1	0.116440	0.084166	1.3835	0.1666
MICH	1	0.051798	0.066986	1.2211	0.2221
MINN	1	-0.113048	0.086604	-1.3054	0.1918
MISS	1	0.198667	0.094706	2.0977	0.0360
MO	1	0.090414	0.074052	1.2210	0.2221
NEB	1	-0.039254	0.108440	-0.3620	0.7174
NEW_JERS	1	-0.037269	0.068066	-0.5475	0.5840
NEW_MEX	1	0.252741	0.117905	2.1436	0.0321
NEW_YORK	1	0.061844	0.061231	1.0100	0.3125
NO_CAR	1	0.266827	0.072687	3.6709	0.0002
OHIO	1	-0.073438	0.065004	-1.1298	0.2586
OKLA	1	0.277825	0.095749	2.9016	0.0037
OREGON	1	0.012754	0.083762	0.1523	0.8790
PENN	1	-0.045410	0.064368	-0.7055	0.4805
SO_CAR	1	0.191901	0.083153	2.3078	0.0210
TENN	1	0.172980	0.079959	2.1634	0.0305
TEXAS	1	0.045126	0.064907	0.6952	0.4869
UTAH	1	0.068380	0.103518	0.6606	0.5089
VA	1	0.014820	0.073244	0.2023	0.8397
WASH	1	-0.110564	0.077454	-1.4275	0.1535
WEST_VA	1	0.147816	0.102019	1.4489	0.1474
WISC	1	-0.071014	0.079417	-0.8942	0.3712

TABLE V-23
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
ALLERGY	1	0.110162	0.082344	1.3378	0.1810
CARD	1	-0.079253	0.050522	-1.5687	0.1168
DERM	1	-0.00742594	0.049081	-0.1513	0.8797
GASTRO	1	-0.081276	0.078812	-1.0313	0.3025
GENSURG	1	-0.488675	0.027112	-18.0243	0.0001
INTMED	1	0.033793	0.024854	1.3597	0.1740
NEURSURG	1	-0.719262	0.073223	-9.8229	0.0001
OBGYN	1	-0.506654	0.028312	-17.8951	0.0001
OPHTHAL	1	-0.083492	0.034248	-2.4379	0.0148
ORTHSURG	1	-0.492496	0.037617	-13.0924	0.0001
OTOLARYN	1	-0.317906	0.046153	-6.8881	0.0001
PEDS	1	0.024161	0.030519	0.7917	0.4286
PSYCH	1	-0.00549192	0.028582	-0.1921	0.8476
UROLOGY	1	-0.390002	0.043850	-8.8940	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	OBGYN	OBSTETRICS/GYNECOLOGY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	PEDS	PEDIATRICS
INTMED	INTERNAL MEDICINE	PSYCH	PSYCHIATRY
NEURSURG	NEUROSURGERY	UROLOGY	UROLOGY

TABLE V-24

THE RELATIONSHIP OF PHYSICIAN-SPECIFIC INDICES TO STATE, POPULATION AND SPECIALTY VARIABLES
(NET INCOME EXCLUDES PENSION; OVERHEAD IMPUTED AT 10.8%)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=7278)

	SSE	2187.991	F RATIO	149.15
WEIGHT: ADJWT	DFE	7220	PROB>F	0.0001
DEP VAR: INDEXXTB	MSE	0.303046	R-SQUARE	0.5408

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	108.375653	0.050796	2133.5661	0.0001
YR77	1	1.384767	0.016654	83.1479	0.0001
YR78	1	0.616724	0.016573	37.2134	0.0001
BLSPOP2	1	0.025913	0.021540	1.2030	0.2290
BLSPOP3	1	0.048244	0.026120	1.8470	0.0648
BLSPOP4	1	0.038964	0.021637	1.8008	0.0718
BLSPOP5	1	0.037474	0.029475	1.2714	0.2036
ALA	1	0.025131	0.069095	0.3637	0.7161
ARIZ	1	0.069845	0.076654	0.9112	0.3622
ARK	1	0.143648	0.083574	1.7188	0.0857
CAL	1	-0.128468	0.053690	-2.3928	0.0167
COLO	1	0.131741	0.072134	1.8263	0.0678
CNMASSRI	1	0.151328	0.057524	2.6307	0.0085
DELDCMD	1	0.067027	0.060998	1.0988	0.2719
FLA	1	0.159666	0.057232	2.7898	0.0053
GA	1	0.212616	0.064493	3.2968	0.0010
ILL	1	0.014950	0.058970	0.2535	0.7999
IND	1	0.013655	0.071496	0.1910	0.8485
IOWA	1	-0.059308	0.082927	-0.7152	0.4745
KAN	1	0.152913	0.083736	1.8261	0.0679
KENT	1	0.162326	0.070882	2.2901	0.0220
LA	1	0.017107	0.068796	0.2487	0.8036
MANHVT	1	0.126487	0.074880	1.6892	0.0912
MICH	1	0.086820	0.059596	1.4568	0.1452
MINN	1	-0.086403	0.077049	-1.1214	0.2622
MISS	1	0.185912	0.084258	2.2065	0.0274
MO	1	0.098797	0.065883	1.4996	0.1338
NEB	1	-0.00143236	0.096477	-0.0148	0.9882
NEW_JERS	1	-0.017940	0.060557	-0.2962	0.7671
NEW_MEX	1	0.236987	0.104897	2.2592	0.0239
NEW_YORK	1	0.073269	0.054476	1.3450	0.1787
NO_CAR	1	0.259584	0.064668	4.0141	0.0001
OHIO	1	-0.046753	0.057833	-0.8084	0.4189
OKLA	1	0.265340	0.085186	3.1148	0.0018
OREGON	1	0.022957	0.074521	0.3081	0.7580
PENN	1	-0.021474	0.057267	-0.3750	0.7077
SO_CAR	1	0.201014	0.073979	2.7172	0.0066
TENN	1	0.173765	0.071137	2.4427	0.0146
TEXAS	1	0.052932	0.057746	0.9166	0.3594
UTAH	1	0.059615	0.092098	0.6473	0.5175
VA	1	0.033410	0.065164	0.5127	0.6082
WASH	1	-0.083762	0.068909	-1.2155	0.2242
WEST_VA	1	0.160773	0.090764	1.7713	0.0765
WISC	1	-0.031992	0.070655	-0.4528	0.6507

TABLE V-24
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
ALLERGY	1	0.095170	0.073260	1.2991	0.1940
CARD	1	-0.090365	0.044949	-2.0104	0.0444
DERM	1	-0.00350307	0.043666	-0.0802	0.9361
GASTRO	1	-0.100393	0.070117	-1.4318	0.1522
GENSURG	1	-0.435408	0.024121	-18.0511	0.0001
INTMED	1	0.023929	0.022112	1.0822	0.2792
NEURSURG	1	-0.640883	0.065145	-9.8378	0.0001
OBGYN	1	-0.464233	0.025189	-18.4301	0.0001
OPHTHAL	1	-0.134504	0.030470	-4.4144	0.0001
ORTHSURG	1	-0.460868	0.033467	-13.7708	0.0001
OTOLARYN	1	-0.317435	0.041061	-7.7307	0.0001
PEDS	1	0.027220	0.027152	1.0025	0.3161
PSYCH	1	0.014391	0.025429	0.5659	0.5715
UROLOGY	1	-0.356682	0.039012	-9.1428	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	OBGYN	OBSTETRICS/GYNECOLOGY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	PEDS	PEDIATRICS
INTMED	INTERNAL MEDICINE	PSYCH	PSYCHIATRY
NEURSURG	NEUROSURGERY	UROLOGY	UROLOGY

TABLE V-25

THE RELATIONSHIP OF PHYSICIAN-SPECIFIC INDICES TO STATE, POPULATION AND SPECIALTY VARIABLES (NET INCOME INCLUDES PENSION; OVERHEAD IMPUTED AT 10.8%)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=7278)

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                              SSE     2045.855       F RATIO        141.65
WEIGHT:  ADJWT                DFE         7220       PROB>F         0.0001
DEP VAR: INDEXXTP             MSE     0.283359       R-SQUARE       0.5279

                        PARAMETER     STANDARD
VARIABLE          DF     ESTIMATE        ERROR       T RATIO     PROB>|T|

INTERCEPT          1   108.412888     0.049118     2207.1943       0.0001
YR77               1     1.295878     0.016104       80.4682       0.0001
YR78               1     0.560152     0.016025       34.9542       0.0001
BLSPOP2            1     0.026469     0.020829        1.2708       0.2038
BLSPOP3            1     0.047353     0.025258        1.8748       0.0609
BLSPOP4            1     0.038988     0.020922        1.8635       0.0624
BLSPOP5            1     0.035594     0.028501        1.2488       0.2118
ALA                1     0.019554     0.066813        0.2927       0.7698
ARIZ               1     0.059102     0.074123        0.7974       0.4253
ARK                1     0.134743     0.080814        1.6673       0.0955
CAL                1    -0.122601     0.051917       -2.3615       0.0182
COLO               1     0.121434     0.069752        1.7409       0.0817
CNMASSRI           1     0.140218     0.055624        2.5208       0.0117
DELDCMD            1     0.060006     0.058983        1.0173       0.3090
FLA                1     0.151633     0.055342        2.7399       0.0062
GA                 1     0.201219     0.062363        3.2266       0.0013
ILL                1     0.010700     0.057022        0.1876       0.8512
IND                1     0.010678     0.069135        0.1545       0.8773
IOWA               1    -0.058024     0.080188       -0.7236       0.4693
KAN                1     0.142272     0.080970        1.7571       0.0789
KENT               1     0.154840     0.068541        2.2591       0.0239
LA                 1     0.014236     0.066524        0.2140       0.8306
MANHVT             1     0.125159     0.072407        1.7285       0.0839
MICH               1     0.082158     0.057628        1.4257       0.1540
MINN               1    -0.089238     0.074505       -1.1978       0.2311
MISS               1     0.182344     0.081475        2.2380       0.0252
MO                 1     0.091727     0.063707        1.4398       0.1500
NEB                1    -0.007377     0.093291       -0.0791       0.9370
NEW_JERS           1    -0.019643     0.058557       -0.3355       0.7373
NEW_MEX            1     0.234974     0.101433        2.3166       0.0206
NEW_YORK           1     0.071039     0.052677        1.3486       0.1775
NO_CAR             1     0.240363     0.062533        3.8438       0.0001
OHIO               1    -0.046112     0.055923       -0.8246       0.4096
OKLA               1     0.248967     0.082373        3.0224       0.0025
OREGON             1     0.019735     0.072060        0.2739       0.7842
PENN               1    -0.021807     0.055375       -0.3938       0.6937
SO_CAR             1     0.187530     0.071536        2.6215       0.0088
TENN               1     0.159657     0.068788        2.3210       0.0203
TEXAS              1     0.048285     0.055839        0.8647       0.3872
UTAH               1     0.046556     0.089056        0.5228       0.6011
VA                 1     0.030306     0.063011        0.4810       0.6306
WASH               1    -0.077415     0.066634       -1.1618       0.2454
WEST_VA            1     0.156724     0.087767        1.7857       0.0742
WISC               1    -0.034260     0.068322       -0.5015       0.6161
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TABLE V-25
(CONT.)

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
ALLERGY	1	0.077849	0.070840	1.0989	0.2718
CARD	1	-0.106816	0.043464	-2.4576	0.0140
DERM	1	-0.018114	0.042224	-0.4290	0.6679
GASTRO	1	-0.110029	0.067802	-1.6228	0.1047
GENSURG	1	-0.426778	0.023324	-18.2976	0.0001
INTMED	1	0.011539	0.021382	0.5397	0.5894
NEURSURG	1	-0.623509	0.062994	-9.8980	0.0001
OBGYN	1	-0.458550	0.024357	-18.8262	0.0001
OPHTHAL	1	-0.138666	0.029463	-4.7064	0.0001
ORTHSURG	1	-0.455295	0.032362	-14.0690	0.0001
OTOLARYN	1	-0.317745	0.039705	-8.0026	0.0001
PEDS	1	0.016557	0.026255	0.6306	0.5283
PSYCH	1	-0.00961092	0.024589	-0.3909	0.6959
UROLOGY	1	-0.357197	0.037724	-9.4687	0.0001

CATEGORICAL VARIABLES

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALA	ALABAMA	MISS	MISSISSIPPI
ARIZ	ARIZONA	MO	MISSOURI
ARK	ARKANSAS	NEB	NEBRASKA
CAL	CALIFORNIA	NEW_JERS	NEW JERSEY
COLO	COLORADO	NEW_MEX	NEW MEXICO
CNMASSRI	CONN.,MASS.,RHODE IS.	NEW_YORK	NEW YORK
DELDCMD	DEL.,WASH D.C.,MARYLAND	NO_CAR	NORTH CAROLINA
FLA	FLORIDA	OHIO	OHIO
GA	GEORGIA	OKLA	OKLAHOMA
ILL	ILLINOIS	OREGON	OREGON
IND	INDIANA	PENN	PENNSYLVANIA
IOWA	IOWA	SO_CAR	SOUTH CAROLINA
KAN	KANSAS	TENN	TENNESSEE
KENT	KENTUCKY	TEXAS	TEXAS
LA	LOUISIANA	UTAH	UTAH
MANHVT	MAINE,NEW HAMP,.VERMONT	VA	VIRGINIA
MICH	MICHIGAN	WASH	WASHINGTON
MINN	MINNESOTA	WEST_VA	WEST VIRGINIA
		WISC	WISCONSIN

ALLERGY	ALLERGY	OBGYN	OBSTETRICS/GYNECOLOGY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	PEDS	PEDIATRICS
INTMED	INTERNAL MEDICINE	PSYCH	PSYCHIATRY
NEURSURG	NEUROSURGERY	UROLOGY	UROLOGY

TABLE V-26

THE RELATIONSHIP OF PERCENT MEDICARE REIMBURSEMENT TO THE PROPORTION OF MEDICARE PATIENTS IN PRACTICE

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4264)

	SSE	1772055	F RATIO	55.01
WEIGHT: ADJWT	DFE	4239	PROB>F	0.0001
DEP VAR: MEDICARE	MSE	418.036206	R-SQUARE	0.2375

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	29.631449	1.158766	25.5715	0.0001
YR77	1	1.721299	0.752853	2.2864	0.0223
YR78	1	1.858854	0.755266	2.4612	0.0139
BLSPOP2	1	-1.620400	0.918240	-1.7647	0.0777
BLSPOP3	1	-2.426724	1.074717	-2.2580	0.0240
BLSPOP4	1	-3.011905	0.872956	-3.4502	0.0006
BLSPOP5	1	-1.831858	1.116103	-1.6413	0.1008
OFFCSHR	1	1.967387	0.935934	2.1021	0.0356
WEST	1	-1.180932	0.909478	-1.2985	0.1942
SOUTH	1	0.749060	0.819900	0.9136	0.3610
NOEAST	1	2.464084	0.864168	2.8514	0.0044
ALLERGY	1	-14.459896	3.169205	-4.5626	0.0001
CARD	1	16.293490	1.845637	8.8281	0.0001
DERM	1	-3.220737	1.790442	-1.7989	0.0721
GASTRO	1	10.821708	2.771407	3.9048	0.0001
GENSURG	1	0.860064	1.065382	0.8073	0.4195
INTMED	1	12.460376	0.891528	13.9764	0.0001
NEURSURG	1	-4.792124	2.746888	-1.7446	0.0811
OBGYN	1	-21.387747	1.145069	-18.6781	0.0001
OPHTHAL	1	14.342190	1.349778	10.6256	0.0001
ORTHSURG	1	-3.949439	1.408205	-2.8046	0.0051
OTOLARYN	1	-7.936487	1.766241	-4.4934	0.0001
PEDS	1	-17.101204	3.687379	-4.6378	0.0001
PSYCH	1	-17.836301	1.770336	-10.0751	0.0001
UROLOGY	1	11.568010	1.594836	7.2534	0.0001

VARIABLES

OFFCSHR: RATIO OF MEDICARE REIMBURSEMENT TO OFFICE FEE

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALLERGY	ALLERGY	OBGYN	OBSTETRICS/GYNECOLOGY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	PEDS	PEDIATRICS
INTMED	INTERNAL MEDICINE	PSYCH	PSYCHIATRY
NEURSURG	NEUROSURGERY	UROLOGY	UROLOGY

TABLE V-27

THE RELATIONSHIP OF PERCENT MEDICARE REIMBURSEMENT TO THE PROPORTION OF MEDICARE PATIENTS IN PRACTICE (CONTROLLING FOR PHYSICIAN SPECIFIC INDICES)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4264)

WEIGHT: ADJWT	SSE	1772003	F RATIO	52.80
DEP VAR: MEDICARE	DFE	4238	PROB>F	0.0001
	MSE	418.122539	R-SQUARE	0.2375

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	24.383605	14.903866	1.6361	0.1019
YR77	1	1.809115	0.792923	2.2816	0.0226
YR78	1	1.906237	0.767165	2.4848	0.0130
BLSPOP2	1	-1.626048	0.918474	-1.7704	0.0767
BLSPOP3	1	-2.429835	1.074865	-2.2606	0.0238
BLSPOP4	1	-3.035697	0.875641	-3.4668	0.0005
BLSPOP5	1	-1.886702	1.126968	-1.6741	0.0942
OFFCSHR	1	1.968638	0.936038	2.1032	0.0355
INDEXXTB	1	5.183386	14.676236	0.3532	0.7240
WEST	1	-1.206702	0.912494	-1.3224	0.1861
SOUTH	1	0.765571	0.821316	0.9321	0.3513
NOEAST	1	2.462255	0.864272	2.8489	0.0044
ALLERGY	1	-14.434786	3.170329	-4.5531	0.0001
CARD	1	16.301176	1.845956	8.8307	0.0001
DERM	1	-3.199843	1.791604	-1.7860	0.0742
GASTRO	1	10.843196	2.772360	3.9112	0.0001
GENSURG	1	0.793975	1.081799	0.7339	0.4630
INTMED	1	12.484739	0.894285	13.9606	0.0001
NEURSURG	1	-4.863537	2.754603	-1.7656	0.0775
OBGYN	1	-21.463193	1.164940	-18.4243	0.0001
OPHTHAL	1	14.337233	1.349990	10.6203	0.0001
ORTHSURG	1	-4.023658	1.423942	-2.8257	0.0047
OTOLARYN	1	-7.992446	1.773516	-4.5066	0.0001
PEDS	1	-17.092692	3.687839	-4.6349	0.0001
PSYCH	1	-17.825393	1.770788	-10.0664	0.0001
UROLOGY	1	11.528664	1.598886	7.2104	0.0001

VARIABLES

OFFCSHR: RATIO OF MEDICARE REIMBURSEMENT TO OFFICE FEE
INDEXXTB: PHYSICIAN SPECIFIC MEDICARE ECONOMIC INDEX VALUE

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALLERGY	ALLERGY	OBGYN	OBSTETRICS/GYNECOLOGY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	PEDS	PEDIATRICS
INTMED	INTERNAL MEDICINE	PSYCH	PSYCHIATRY
NEURSURG	NEUROSURGERY	UROLOGY	UROLOGY

TABLE V-28

THE RELATIONSHIP OF PERCENT MEDICARE REIMBURSEMENT TO THE PROPORTION OF MEDICARE PATIENTS IN PRACTICE (CONTROLLING FOR TOTAL PRACTICE COSTS)

(CROSS EQUATION PARAMETERS FOR SAME VARIABLE SUM TO 0)
(N=4264)

	SSE	1770225	F RATIO	53.02
WEIGHT: ADJWT	DFE	4238	PROB>F	0.0001
DEP VAR: MEDICARE	MSE	417.702884	R-SQUARE	0.2383

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|
INTERCEPT	1	30.707935	1.267312	24.2308	0.0001
YR77	1	1.815562	0.753898	2.4082	0.0161
YR78	1	2.043312	0.760089	2.6883	0.0072
BLSPOP2	1	-1.557950	0.918359	-1.6965	0.0899
BLSPOP3	1	-2.431443	1.074291	-2.2633	0.0237
BLSPOP4	1	-3.002587	0.872619	-3.4409	0.0006
BLSPOP5	1	-1.733195	1.116653	-1.5521	0.1207
OFFCSHR	1	1.995874	0.935660	2.1331	0.0330
ABTOTCST	1	-1.168896	0.558350	-2.0935	0.0364
WEST	1	-1.131449	0.909423	-1.2441	0.2135
SOUTH	1	0.829798	0.820480	1.0114	0.3119
NOEAST	1	2.207334	0.872486	2.5299	0.0114
ALLERGY	1	-14.083186	3.173047	-4.4384	0.0001
CARD	1	16.572887	1.849722	8.9597	0.0001
DERM	1	-3.085627	1.790891	-1.7230	0.0850
GASTRO	1	11.118317	2.773922	4.0082	0.0001
GENSURG	1	1.092426	1.070726	1.0203	0.3077
INTMED	1	12.574571	0.892841	14.0838	0.0001
NEURSURG	1	-4.159571	2.762367	-1.5058	0.1322
OBGYN	1	-20.972379	1.161681	-18.0535	0.0001
OPHTHAL	1	14.775395	1.365015	10.8243	0.0001
ORTHSURG	1	-3.188574	1.453806	-2.1933	0.0283
OTOLARYN	1	-7.561010	1.774624	-4.2606	0.0001
PEDS	1	-17.097341	3.685909	-4.6386	0.0001
PSYCH	1	-18.117332	1.774714	-10.2086	0.0001
UROLOGY	1	11.858545	1.600229	7.4105	0.0001

VARIABLES

OFFCSHR: RATIO OF MEDICARE REIMBURSEMENT TO OFFICE FEE
ABTOTCST: TOTAL PRACTICE COST IN 100,000 OF DOLLARS

YR77: SURVEY YEAR 1977
YR78: SURVEY YEAR 1978

WEST: WESTERN U.S. CENSUS REGION
NOEAST: NORTH-EASTERN U.S. CENSUS REGION
SOUTH: SOUTHERN U.S. CENSUS REGION

BLSPOP2: COUNTY IN SMSA WITH ACTUAL OR POTENTIAL POPULATION BETWEEN 50,000 AND 499,999 (1970 CENSUS)
BLSPOP3: COUNTY IN SMSA WITH POPULATION BETWEEN 500,000 AND 999,999 (1970 CENSUS)
BLSPOP4: COUNTY IN SMSA WITH POPULATION BETWEEN 1,000,000 AND 4,999,999 (1970 CENSUS)
BLSPOP5: COUNTY IN SMSA WITH POPULATION GREATER THAN 2,500,000 (1970 CENSUS)

ALLERGY	ALLERGY	OBGYN	OBSTETRICS/GYNECOLOGY
CARD	CARDIOLOGY	OPHTHAL	OPHTHALMOLOGY
DERM	DERMATOLOGY	ORTHSURG	ORTHOPEDIC SURGERY
GASTRO	GASTROENTEROLOGY	OTOLARYN	OTOLARYNGOLOGY
GENSURG	GENERAL SURGERY	PEDS	PEDIATRICS
INTMED	INTERNAL MEDICINE	PSYCH	PSYCHIATRY
NEURSURG	NEUROSURGERY	UROLOGY	UROLOGY

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Project Description/Abstract : THIS REPORT EXAMINES THE VARIATION IN PRACTICE COSTS AND CERTAIN FEES ACROSS PHYSICIAN SPECIALTIES. THE ANALYSIS RELIES ON DATA FROM PPCIS, 1976-78. THE RESULTS FROM THE ANALYSIS INDICATE THAT SIGNIFICANT DIFFERENCES DO EXIST ACROSS SPECIALTIES IN THE PRINCIPAL COST SHARES OF RENT, SUPPLIES, OVERHEAD, SALARIES, AUTO EXPENSES, MALPRACTICE PREMIUMS, AND NET INCOME. THESE COST SHARES ALSO VARY SIGNIFICANTLY ACROSS REGION AND POPULATION GROUPINGS ALTHOUGH, WITH THE REGIONS DISAGGREGATED INTO STATES, THE NUMBER OF SIGNIFICANT FINDINGS IS FEWER. AGGREGATE COST INDICES DO NOT SHOW SUBSTANTIAL INTER-REGIONAL OR INTER-SPECIALTY DIFFERENCES.

NB:TABLE 39 OF THE ANALYSIS OF THE MEDICAL ECONOMIC INDEX: APPENDIX I COSTS AND COST SHARES OPTION YEAR 2 CONTAINS THE MEI WEIGHTS USED IN THE REGULATION. (APPENDIX LISTED SEPARATELY).

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